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1   GATCAGAATT TTTTTTCTTT TTCCCCCTTG AAGGGGCGAA GCCATCCCCA
51  TTTCTCTGGT CACCAGCCGG GAAACCACGT AAGCTCCGGC GTCACCCATA
101 ACAGATACGG ACTTTCTCAA AGGAGAGTTA TCAATGAATA TTCGTCCATT
151 GCATGATCGC GTGATCGTCA AGCGTAAAGA AGTTGAAACT AAATCTGCTG
201 GCGGCATCGT TCTGACCGGC TCTGCAGCGG CTAAATCCAC CCGCGGCGAA
251 GTGCTGGCTG TCGGCAATGG CCGTATCCTT GAAAATGGCG AAGTGAAGCC
301 GCTGGATGTG AAAGTTGGCG ACATCGTTAT TTTCAACGAT GGCTACGGTG
351 TGAAATCTGA GAAGATCGAC AATGAAGAAG TGTTGATCAT GTCCGAAAGC
401 GACATTCTGG CAATTGTTGA AGCGTAATCC GCGCACGACA CTGAACATAC
451 GAATTTAAGG AATAAAGATA ATGGCAGCTA AAGACGTAAA ATTCCGGTAAC
501 GACGCTCGTG TGAAAATGCT GCGCGGCGTA AACGTACTGG CAGATGCAGT
551 GAAAGTTACC CTCGGTCCAA AAGGCCGTAA CGTAGTTCTG GATAAATCTT
601 TCGGTGCACC GACCATCACC AAAGATGGTG TTTCCGTTGC TCGTGAAATC
651 GAACTGGAAG ACAAGTTCGA AAATATGGGT GCGCAGATGG TGAAAGAAGT
701 TGCCTCTAAA GCAAACGACG CTGCAGGCGA CGGTACCACC ACTGCAACCG
751 TACTGGCTCA GGCTATCATC ACTGAAGGTC TGAAAGCTGT TGCTGCGGGC
801 ATGAACCCGA TGGACCTGAA ACGTGGTATC GACAAAGCGG TTACCGCTGC
851 AGTTGAAGAA CTGAAAGCGC TGTCCGTACC ATGCTCTGAC TCTAAAGCGA
901 TTGCTCAGGT TGGTACCATC TCCGCTAACT CCGACGAAAC CGTAGGTAAA
951 CTGATCGCTG AAGCGATGGA CAAAGTCGGT AAAGAAGGCG TTATCACCGT
1001 TGAAGACGGT ACCGGTCTGC AGGACGAACT GGACGTGGTT GAAGGTATGC
1051 AGTTCGACCG TGGCTACCTG TCTCCTTACT TCATCAACAA GCCGGAAACT
1101 GGCGCAGTAG AACTGGAAAG CCCGTTTCATC CTGCTGGCTG ACAAGAAAAT
1151 CTCCAACATC CGCGAAATGC TGCCGGTTCT GGAAGCTGTT GCCAAAGCAG
1201 GCAAACCGCT GCTGATCATC GCTGAAGATG TAGAAGGCGA AGCGCTGGCA
1251 ACTGCTGTTG TTAACACCAT TCGTGGCATC GTGAAAGTCG CTGCGGTTAA
1301 AGCACCGGGC TTCGGCGATC GTCGTAAAGC TATGCTGCAG GATATCGCAA
1351 CCCTGACTGG CGGTACCGTG ATCTCTGAAG AGATCGGTAT GGAGCTGGAA
1401 AAAGCAACCC TGGAAGACCT GGGTCAGGCT AAACGTGTTG TGATCAACAA
1451 AGACACCACC ACTATCATCG ATGGCGTGGG TGAAGAAGCT GCAATCCAGG
1501 GCCGTGTTGC TCAGATCCGT CAGCAGATTG AAGAAGCAAC TTCTGACTAC
1551 GACCGTGAAA AACTGCAGGA ACGCGTAGCG AAACGTGGCAG GCGGCGTTGC
1601 AGTTATCAAA GTGGGTGCTG CTACCGAAGT TGAAATGAAA GAGAAAAAAG
1701 GTGGTTGCTG GTGGTGGTGT TGCGCTGATC CGCGTAGCGT CTAAACTGGC
1751 TGACCTGCGT GGTGAGAACG AAGACCAGAA CGTGGGTATC AAAGTTGCAC
1801 TGCGTGCAAT GGAAGCTCCG CTGCGTCAGA TCGTATTGAA CTGCGGCGAA
1851 GAACCGTCTG TTGTTGCTAA CACCGTTAAA GGCGGCGACG GCAACTACGG
1901 TTACAACGCA GCAACCGAAG AATACGGCAA CATGATCGAC ATGGGTATCC
1951 TGGATCCAAC CAAAGTAACT CGTTCTGCTC TGCAGTACGC AGCTTCTGTG
2001 GCTGGCCTGA TGATCACCAC CGAATGCATG GTTACCGACC TGCCGAAAAA

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FIGURE 1A

2051 CGATGCAGCT GACTTAGGCG CTGCTGGCGG TATGGGCGGC ATGGGTGGCA
 2101 TGGGCGGCAT GATGTAATTG CCCTGCACCT CGCAGAAATA AACAAACCCC
 2151 CGGGCAGAAA TGTCTGGGGG TTTTCTTTT GGTCATCTTT CTTCTAGTAT
 2201 AAGATTCACA CACGGACGAC GCGAGTGCCT CCAGCTCATT GATTATGGGG
 2251 AATAACATGC ACGTAAA

FIGURE 1B

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1  CGGACTTTCT CAAAGGAGAG TTATCAATGA ATATTCGTCC ATTGCATGAT
51  CGCGTGATCG TCAAGCGTAA AGAAGTTGAA ACTAAATCTG CTGGCGGCAT
101 CGTTCGTACC GGCTCTGCAG CGGCTAAATC CACCCGCGGC GAAGTGCTGG
151 CTGTCGGCAA TGGCCGTATC CTTGAAAATG GCGAAGTGAA GCCGCTGGAT
201 GTGAAAGTTG GCGACATCGT TATTTTCAAC GATGGCTACG GTGTGAAATC
251 TGAGAAGATC GACAATGAAG AAGTGTTGAT CATGTCCGAA AGCGACATTC
301 TGGCAATTGT TGAAGCGTAA TCCTCGCACG ACACTGAACA TACGAATTTA
351 AGGAATAAAG ATAATGGCAG CTAAAGACGT AAAATTCCGT AACGACGCTC
401 GTGTGAAAAT GCTGCGCGGC GTAAACGTAC TGGCAGATGC AGTGAAAGTT
451 ACCCTCGGTC CGAAAGGCCG TAACGTAGTT CTGGATAAAT CTTTCGGTGC
501 ACCGACCATC ACCAAAGATG GTGTTTCCGT TGCTCGTGAA ATCGAACTGG
551 AAGACAAGTT CGAAAATATG GGTGCGCAGA TGGTGAAAGA AGTTGCCTCT
601 AAAGCGAACG ACGCTGCAGG CGACGGTACC ACCACTGCAA CTGTACTGGC
651 TCAGGCTATC ATCACTGAGG GTCTGAAAGC TGTTGCTGCG GGCATGAACC
701 CGATGGACCT GAAACGTGGT ATCGACAAAG CCGTTACCGC TGCAGTTGAA
751 GAACTGAAAG CGCTGTCCGT ACCGTGCTCT GACTCTAAAG CGATTGCTCA
801 GGTGTTGTTACC ATCTCCGCTA ACTCCGACGA AACCGTAGGT AACTGATCG
851 CTGAAGCGAT GGACAAAGTC GGTAAAGAAG GCGTTATCAC CGTTGAAGAC
901 GGTACCGGTC TGCAGGACGA ACTGGACGTG GTTGAAGGTA TGCAGTTCGA
951 CCGTGGCTAC CTGTCTCCTT ACTTCATCAA CAAGCCGGAA ACTGGCGCAG
1001 TAGAACTGGA AAGCCCGTTC ATCCTGCTGG CTGACAAGAA AATCTCTAAC
1051 ATCCGCGAAA TGCTGCCGGT TCTGGAAGCT GTTGCCAAAG CAGGCAAACC
1101 GCTGCTGATC ATCGCTGAAG ATGTTGAAGG CGAAGCGCTG GCAACTCTGG
1151 TTGTTAACAC CATGCGTGGC ATCGTGAAAG TTGCTGCGGT TAAAGTCCG
1201 GGCTTCGGCG ATCGTCGTAA AGCTATGCTG CAGGATATCG CAACCCTGAC
1251 TGGCGGTACC GTAATCTCTG AAGAGATCGG TATGGAGCTG GAAAAAGCAA
1301 CCCTGGAAGA CCTGGGTCAG GCTAAACGTG TTGTGATCAA CAAAGACACC
1351 ACCACTATCA TCGATGGCGT GGGTGAAGAA GCTGCAATCC AGGGCCGTGT
1401 TGCTCAGATC CGTCAGCAGA TTGAAGAAGC AACTTCTGAC TACGACCGTG
1451 AAAAAGTACA GGAACGCGTA GCGAAACTGG CAGGCGGCGT TGCAGTTATC
1501 AAAGTAGGTG CTGCTACCGA AGTTGAAAATG AAAGAGAAAA AAGCACGCGT
1551 TGAAGACGCC CTGCACGCGA CCCGTGCTGC GGTAGAAGAA GCGGTGGTTG
1601 CTGGTGGTGG TGTGCGCTG ATCCGCGTAG CGTCTAAACT GGCTGACCTG
1651 CGTGGTCAGA ACGAAGACCA GAACGTGGGT ATCAAAGTTG CACTGCGTGC
1701 AATGGAAGCT CCGCTGCGTC AGATCGTCCT GAACTGCGGC GAAGAACCGT
1751 CTGTTGTTGC TAACACCGTT AAAGGCGGCG ACGGCAACTA CGGTTACAAC
1801 GCAGCAACCG AAGAATACGG CAACATGATC GACATGGGTA TCCTGGACCC
1851 AACCAAAGTA ACCCGTTCTG CTCTGCAGTA CGCGGCTTCT GTGGCTGGCC
1901 TGATGATCAC CACCGAGTGC ATGGTTACCG ACCTGCCGAA AAATGATGCA
1951 GCTGACTTAG GCGCTGCTGG CGGTATGGGC GGCATGGGTG GCATGGGCGG
2001 CATGATGTAA TTGCCCTGCA CCTCGCAGAA AA

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FIGURE 2

THE SEQUENCE OF THE CLONED DNA

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1  ACATGAATAT CGTCCATGCA TGATCGCGTA TCGTCAAGCG TAAAGAAGTT
51  GAAACTAAAT CTGCTGGCGG CATCGTTCTG ACCGGCTCTG CAGCGGCTAA
101 ATCCACCCGC GCGCAAGTGC TGGCTGTCGG CAATGGCCGT ATCCTTGAAA
151 ATGGCGAAGT GAAGCCGCTG GATGTGAAAG TTGGCGACAT CGTTATTTTC
201 AACGATGGCT ACGGTGTGAA ATCTGAGAAG ATCGACAATG AAGAAGTGTT
251 GATCATGTCC GAAAGCGACA TTCTGGCAAT TGTTGAAGCG TAATCCGCGC
301 ACGACACTGA ACATACGAAT TTAAGGAATA AAGATAATGG CAGCTAAAGA
351 CGTAAAATTC GGTAACGACG CTCGTGTGAA AATGCTGCGC GCGGTAAACG
401 TACTGGCAGA TGCAGTGAAA GTTACCCTCG GTCCGAAAGG CCGTAACGTA
451 GTTCTGGATA AATCTTTCGG TGCACCGACC ATCACCAAAG ATGGTGT TTC
501 CGTTGCTCGT GAAATCGAAC TGGAAGAACA AGTTCGAAAA CATGGGTGCG
551 CAGATGGTGA AAGAAGTTGC CTCTAAAGCG AACGACGCTG CAGGCGACGG
601 TACCACCACT GCAACCGTAC TGGCTCAGGC TATCATCACT GAGGGTCTGA
651 AAGCTGTTGC TCGGGGCATG AACCCGATGG ACCTGAAACG TGGTATCGAC
701 AAAGCAGTTA CCGCTGCAGT TGAAGAAGT AAAGCGCTGT CCGTACCGTG
751 CTCTGACTCT AAAGCGATTG CTCAGGTTGG TACCATCTCT GCTAACTCCG
801 ACGAAACCGT AGGTAAACTG ATCGCTGAAG CGATGGACAA AGTCGGTAAA
851 GAAGGCGTTA TCACCGTTGA AGACGGTACC GGTCTGCAGG ACGAACTGGA
901 CGTGTTGTA GGTATGCAGT TCGACCGTGG CTACCTGTCT CCTACTTCA
951 TCAACAAGCC GGAAACTGGC GCAGTAGAAC TGGAAAGCCC GTTCATCCTG
1001 CTGGCTGACA AGAAAATCTC CAACATCCGC GAAATGCTGC CGGTTCTGGA
1051 AGCTGTTGCC AAAGCAGGCA AACCGCTGCT GATCATCGCT GAAGATGTAG
1101 AAGGCGAAGC GCTGGCAACT GCTGTTGTTA ACACCATTCG TGGCATCGTG
1151 AAAGTCGCTG CGGTTAAAGC ACCGGGCTTC GGCGATCGTC GTAAAGCTAT
1201 GCTGCAGGAT ATCGCAACCC TGA CTGGCGG TACCGTGATC TCTGAAGAGA
1251 TCGGTATGGA GCTGGAAAAA GCAACCCTGG AAGACCTGGG TCAGGCTAAA
1301 CGTGTTGTGA TCAACAAAGA CACCACCACT ATCATCGATG GCGTGGGTGA
1351 AGAAGCTGCA ATCCAGGGCC GTGTTGCTCA GATCCGTCAG CAGATTGAAG
1401 AAGCAACTTC TGA CTACGAC CGTGAAAAAC TGCAGGAACG CGTAGCGAAA
1451 CTGGCAGGCG GCGTTGCAGT TATCAAAGTG GGTGCTGCTA CCGAAGTTGA
1501 AATGAAAGAG AAAAAAGCAC GCGTTGAAGA TGCCCTGCAC GCGACCCGTG
1551 CTGCGGTAGA AGAAGGCGTG GTTGCTGGTG GTGGTGTGTC GCTGATCCGC
1601 GTAGCGTCTA AACTGGCTGA CCTGCGTGGT CAGAACGAAG ACCAGAACGT
1651 GGGTATCAAA GTTGCACTGC GTGCAATGGA AGCTCCGCTG CGTCAGATCG
1701 TCCTGAACTG CCGCGAAGAA CCGTCTGTTG TTGCTAACAC CGTTAAAGGC
1751 GGCGACGGCA ACTACGGTTA CAACGCAGCA ACCGAAGAAT ACGGCAACAT
1801 GATCGACATG GGTATCCTGG ATCCAACCAA AGTAACCCGT TCTGCTCTGC
1851 AGTACGCGGC TTCTGTGGCT GGCCTGATGA TCACCACCGA GTGCATGGTT
1901 ACCGACCTGC CGAAAAACGA TGCAGCTGAC TTAGGCGCTG CTGGCGGTAT
1951 GGGCGGCATG GGTGGCATGG GCGGCATGAT GTAATTGCTC TGCACCTCGC
2001 AGAAAA

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FIGURE 3

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1  CGACATTCTG GCAATTGTTG AAGCGTAATC CGCGCACGAC ACTGAACATA
51  CGAATTTAAG GAATAAAGAT AATGGCAGCT AAAGACGTAA AATTCGGTAA
101 CGACGCTCGT GTGAAAATGC TGC CGCGCGT AAACGTA CTG GCAGATGCAG
151 TGAAAGTTAC CCTCGGTCCA AAAGGCCGTA ACGTAGTTCT GGATAAATCT
201 TTCGGTGCAC CGACCATCAC CAAAGATGGT GTTTCCGTTG CTCGTGAAAT
251 CGAACTGGAA GACAAGTTCG AAAATATGGG TGCGCAGATG GTGAAAGAAG
301 TTGCCTCTAA AGCAAACGAC GCTGCAGGCG ACGGTACCAC CACTGCAACC
351 GTACTGGCTC AGGCTATCAT CACTGAAGGT CTGAAAGCTG TTGCTGCGGG
401 CATGAACCCG ATGGACCTGA AACGTGGTAT CGACAAAGCG GTTACCGCTG
451 CAGTTGAAGA ACTGAAAGCG CTGTCCGTAC CATGCTCTGA CTCTAAAGCG
501 ATTGCTCAGG TTGGTACCAT CTCCGCTAAC TCCGACGAAA CCGTAGGTAA
551 ACTGATCGCT GAAGCGATGG ACAAAGTCGG TAAAGAAGGC GTTATCACCG
601 TTGAAGACGG TACCGGTCTG CAGGACGAAC TGGACGTGGT TGAAGGTATG
651 CAGTTGACCG GTGGCTACCT GTCTCCTTAC TTCATCAACA AGCCGGAAAC
701 TGGCGCAGTA GAACTGGAAA GCCCGTTCAT CCTGCTGGCT GACAAGAAAA
751 TCTCCAACAT CCGCGAAATG CTGCCGGTTC TGGAAGCTGT TGCCAAAGCA
801 GGCAAACCGC TGCTGATCAT CGCTGAAGAT GTAGAAGGCG AAGCGCTGGC
851 AACTGCTGTT GTTAACACCA TTCGTGGCAT CGTGAAGTC GCTGCGGTTA
901 AAGCACCGGG CTTGCGCGAT CGTCGTAAAG CTATGCTGCA GGATATCGCA
951 ACCCTGACTG GCGGTACCGT GATCTCTGAA GAGATCGGTA TGGAGCTGGA
1001 AAAAGCAACC CTGGAAGACC TGGGTCAGGC TAAACGTGTT GTGATCAACA
1051 AAGACACCAC CACTATCATC GATGGCGTGG GTGAAGAAGC TGCAATCCAG
1101 GGCCGTGTTG CTCAGATCCG TCAGCAGATT GAAGAAGCAA CTTCTGACTA
1151 CGACCGTGAA AACTGCAGG AACGCGTAGC GAAACTGGCA GGCGGCGTTG
1201 CAGTTATCAA AGTGGGTGCT GCTACCGAAG TTGAAATGAA AGAGAAAAAA
1251 GCACGCGTTG AAGATGCCCT GCACGCGACC CGTGCTGCGG TAGAAGAAGG
1301 CGTGGTTGCT GGTGGTGGTG TTGCGCTGAT CCGCGTAGCG TCTAAACTGG
1351 CTGACCTGCG TGGTCAGAAC GAAGACCAGA ACGTGGGTAT CAAAGTTGCA
1401 CTGCGTGCAA TGGAAGCTCC GCTGCGTCAG ATCGTATTGA ACTGCGGCGA
1451 AGAACCGTCT GTTGTTGCTA ACACCGTTAA AGGCGGCGAC GGCAACTACG
1501 GTTACAACGC AGCAACCGAA GAATACGGCA ACATGATCGA CATGGGTATC
1551 CTGGATCCAA CCAAAGTAAC TCGTTCTGCT CTGCAGTACG CAGCTTCTGT
1601 GGCTGGCCTG ATGATCACCA CCGAATGCAT GGTTACCGAC CTGCCGAAAA
1651 ACGATGCAGC TGA CTTAGGC GCTGCTGGCG GTATGGGCGG CATGGGTGGC
1701 ATGGGCGGCA TGATGTAATT GCCCTGCACC TCGCAGAAAT A

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FIGURE 4

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1      TACCCGTCGC TTTGAGAAAA ATGGTCAGAT GAATTATGTA ACCGAAGTCC
51     TTGTGACAGG ATTCCAAC TC TGGAAGTC GTGCCCAACG TGCTATGCGT
101    GAAAAATAATG CAGGCCAAGA TTTGGCAGAT TTGGTCTTGG AAGAGGAAGA
151    ATTGCCATTT TAAGAATTAA AAAGTCTGAG TTGGTCTCAG GCTTTTTTATC
201    TTGAGAAAGT CAGACTTTTT TCTTGACTAT TTCTGACCAA GTGATACAAT
251    AGAATTATGA ATTAGCACTC CAGTTCAAAG AGTGCTAATA ATATCTATCT
301    CATTATGGAG GAAATCAGAT GTTGAAACCA TTAGGGGACC GTGTGCTCTT
351    AAAAAATAGAA GAAAAAGAAC AAACCGTTGG AGGCTTTGTC CTTGCAGGCT
401    CAGCCCAAGA AAAAACCAAA ACAGCTCAAG TTGTGGCTAC TGGACAAGGT
451    GTTCGTACCT TGAACGGTGA CTTGGTTGCT CCAAGTGTTA AAAGTGGAGA
501    TCGTGTCTTA GTTGAAGCCC ACGCAGGTCT TGATGTCAA GATGGCGATG
551    AAAAGTACAT CATCGTAGGC GAAGCTAACA TTTTGGCAAT CATTGAGGAA
601    TAGAAGGAGA AAGTAAGTAT GTCAAAAGAA ATTAAATTTT CATCAGATGC
651    CCGTTCAGCC ATGGTTCGTG GTGTCGATAT CCTTGCAGAC ACTGTTAAAG
701    TAACCTTGGG ACCAAAAGAT CGCAATGTCG TTCTTGAAAA GTCATTCGGT
751    TCACCTTGA TTACCAATGA CGGTGTGACC ATTGCCAAAG AAATCGAATT
801    GGAAGACCAT TTTGAAAATA TGGGTGCTAA GTTAGTATCA GAAATAGCTT
851    CTA AACCA TGATATCGCA GGTGACGGGA CTACGACTGC AACAGTCTTG
901    ACCCAAGCTA TCGTCCGTGA AGGAATCAAA AACGTCACAG CAGGTGCAAA
951    TCCAATCGGT ATTCGTCTGT GGATTGAAAC AGCAGTTGCC GCAGCAGTTG
1001   AAGCTTTGAA AAACAACGCC ATCCCTGTTG CCAATAAAGA AGCTATCTCT
1051   CAAGTTGCAG CCGTATCTTC TCGTTCTGAA AAAGTTGGTG AGTACATCTC
1101   TGAAGCAATG GAAAAAGTTG GCAAAGACGG TGTCATCACC ATCGAAGAGT
1151   CACGTGGTAT GGAAACAGAG CTTGAAGTCG TAGAAGGAAT GCAGTTTGAC
1201   CGTGGTTACC TTTCACAGTA CATGGTGA CT GATAGCGAAA AAATGGTGGC
1251   TGACCTTGAA AATCCGTACA TTTTGATTAC AGACAAGAAA ATTTCCAATA
1301   TCCAAGAAAT CTTGCCACTT TTGGAAAGCA TTCTCCAAAG CAATCGTCCA
1351   CTCTTGATTA TTGCGGATGA TGTGGATGGC GAGGCTCTTC CAACTCTTGT
1401   TTTGAACAAG ATTCGTGGAA CTTTCAACGT AGTAGCAGTC AAGGCACCTG
1451   GTTTTGGTGA CCGTCGCAA GCCATGCTTG AAGATATCGC CATCTTAACA
1501   GCGGGAACAG TTATCACAGA AGACCTTGGT CTTGAGTTGA AAGATGCGAC
1551   AATTGAAGCT CTTGGTCAAG CAGCGAGAGT GACCGTGGAC AAAGATAGCA
1601   CGGTTATTGT AGAAGGTGCA GGAAATCCTG AAGCGATTTC TCACCGTGTT
1651   GCGGTTATCA AGTCTCAAAT CGAAACTACA ACTTCTGAAT TTGACCGTGA
1701   AAAATTGCAA GAACGCTTGG CCAAATTGTC AGGTGGTGTA GCGGTTATTA
1751   AGGTTGGAGC CGCAACTGAA ACTGAGTTGA AAGAAATGAA ACTCCGCATT
1801   GAAGATGCCC TCAACGCTAC TCGTGCAGCT GTTGAAGAAG GTATTGTTGC
1851   AGGTGGTGGA ACAGCTCTTG CCAATGTGAT TCCAGCTGAA GCTACCTTGG
1901   AATTGACAGG AGATGAAGCA ACAGGACGTA ATATTGTTCT CCGTGCTTTG
1951   GAAGAACCCG TTCGTCAAAT TGCTCACAAT GCAGGATTTG AAGGATCTAT

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FIGURE 5A

125 42 10 0.000-0.000000

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2001 CGTTATCGAT CGTTTGAAAA ATGCTGAGCT TGGTATAGGA TTTAACGCAG
2051 CAACTGGCGA GTGGGTTAAC ATGATTGATC AAGGTATCAT TGATCCAGTT
2101 AAAGTGAGTC GTTCAGCCCT ACAAATGCA GCATCTGTAG CCAGCTTGAT
2151 TTTGACAACA GAAGCAGTCG TAGCCAATAA ACCAGAACCA GTAGCCCCAG
2201 CTCCAGCAAT GGATCCAAGC ATGATGGGCG GGATGATGTA AGCTTTCTAT
2251 AGAAAACAAC TTATAAAAAA CACAAAAGGA GGAATGACT AACCTTCTT
2301 TTTATAGGCT CTTTGTCAAC TGTAGTGGGT TGAAGTCAGC TAAGCTCGAG
2351 AAAGGACAAA TTTCGTCCTT TCTTTTTTGA TGTCAAAGC GATAAAAATC
2401 C
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FIGURE 5B

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1   TCTTGAAGA GGAAGAATTG CCATTTTAAG AATTAAAAAG TCTGAGTTGG
51  TCTCAGGCTT TTTATCTTGA GAAAGTCAGA CTTTTTCTT GATTATTTCT
101 GACTAAGTGA TACAATAGAA CTATGAATTA GCACTCAGGT ATAAAGAGTG
151 CTAATAATAT CTATCTCATT ATGGAGGAAA TCAGATGTTG AAACCATTAG
201 GGGACCGTTT GGTCTTAAAA GTAGAAGAAA AAGAACAAAC TGTGAGGAGC
251 TTTGTTCTCG CAGGTTGAGC CCAAGAAAAA ACCAAAACAG CCCAAGTTGT
301 GGCTACTGGA CAAGGTGTTT GTACCTTGAA CGGTGACTTG GTTGCTCCAA
351 GTGTTAAAAC TGGAGACCGT GTCTTAGTTG AAGCCACGC AGGTCTTGAT
401 GTCAAAGATG GCGATGAAAA GTATATCATC GTAGGCGAAG CTAACATCTT
451 GGCAATCATT GAAGAATAGA AGGAGAAAGT AAGTATGTCA AAAGAAATTA
501 AATTTTCATC AGATGCCCGT TCAGCTATGG TCCGTGGTGT CGATATCCTT
551 GCAGATACTG TTAAAGTAAC CTTGGGACCA AAAGGTCGCA ATGTCGTTCT
601 TGAAAAATCA TTTGGCTCAC CATTGATTAC CAATGACGGT GTGACTATTG
651 CCAAAGAAAT TGAATTAGAA GACCATTTTG AAAATATGGG TGCCAAATTG
701 GTATCAGAAG TAGCTTCTAA AACCAATGAT ATCGCAGGTG ACGGGACTAC
751 GACTGCAACA GTCTTGACCC AAGCTATCGT CCGTGAAGGA ATCAAAAACG
801 TCACAGCAGG TGCAAATCCA ATCGGTATTC GTCGTGGGAT TGAAACAGCA
851 GTTGCCGCAG CAGTTGAAGC TTTGAAAAAC AACGCCATCC CTGTTGCCAA
901 TAAAGAAGCT ATCGCTCAAG TTGCAGCCGT ATCTTCTCGT TCTGAAAAAG
951 TTGGTGAGTA CATCTCTGAA GCAATGGAAA AAGTTGGCAA AGACGGTGTC
1001 ATCACCATCG AAGAGTCACG TGGTATGGAA ACAGAGCTTG AAGTCGTAGA
1051 AGGAATGCAG TTTGACCGTG GTTACCTTTC ACAGTACATG GTGACAGATA
1101 GCGAAAAAAT GGTGGCTGAC CTTGAAAATC CGTACATTTT GATTACAGAC
1151 AAGAAAATTT CCAATATCCA AGAGATCTTG CCACTTTTGG AAAGCATTCT
1201 CCAAAGCAAT CGTCCACTCT TGATTATTGC GGATGATGTG GATGGCGAGG
1251 CTCTTCCAAC TCTTGTTTTG AACAAGATTC GTGGAACCTT CAACGTAGTA
1301 GCAGTCAAGG CACCTGGTTT TGGTGACCGT CGCAAAGCCA TGCTTGAAGA
1351 TATCGCCATC TTAACAGGCG GAACAGTTAT CACAGAAGAC CTTGGTCTTG
1401 AGTTGAAAGA TGCGACAATT GAAGCTCTTG GTCAAGCAGC GAGAGTGACC
1451 GTGGACAAAG ATAGCACGGT TATTGTAGAA GGTGCAGGAA ATCCTGAAGC
1501 GATTTCTCAC CGTGTTCGGG TTATCAAGTC TCAAATCGAA ACTACAACCT
1551 CTGAATTTGA CCGTGAAAAA TTGCAAGAAC GCTTGCCAA ATTGTCAGGT
1601 GGTGTAGCGG TTATTAAGGT CGGAGCCGCA ACTGAAACTG AGTTGAAAGA
1651 AATGAACTC CGCATTGAAG ATGCCCTCAA CGTACTCGT GCAGCTGTTG
1701 AAGAAGGTAT TGTTGCAGGC GGTGGAACAG CTCTTGCCAA TGTGATTCCA
1751 GCTGTTGCTA CCTTGGAATT GACAGGAGAT GAAGCAACAG GACGTAATAT
1801 TGTTCTCCGT GCTTTGGAAG AACCCGTTTG TCAAATTGCT CACAATGCAG
1851 GATTTGAAGG ATCTATCGTT ATCGATCGTT TGAAAAATGC TGAGCTTGGT
1901 ATAGGATTTA ACGCAGCAAC TGGCGAGTGG GTTAACATGA TTGATCAAGG
1951 TATCATTGAT CCAGTTAAAG TGAGTCGTTT AGCCCTACAA AATGCAGCAT
2001 CTGTAGCCAG CTTGATTTTG ACAACAGAAG CAGTCGTAGC CAATAAACCA
2051 GAACCAGTAG CCCAGCTCC AGCAATGGAT CCAAGCATGA TGGGCGGGAT
2101 GATGTAA

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FIGURE 6


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1   GATCATTTTCG AAAACATGGG AGCAAAATTG GTGTCTGAAG TGGCTTCTAA
51  AACCAATGAT ATTGCTGGTG ATGGGACGAC TACTGCAACA GTTTTGACAC
101 AAGCCATTGT TCATGAAGGA CTAAAAAATG TGACAGCAGG TGCTAATCCA
151 ATTGGTATCC GTCGAGGCAT TGAAACAGCA ACAGCAACAG CTGTTGAAGC
201 CTTGAAAGCC GTTGCTCAAC CTGTATCTGG CAAGGAAGCT ATTGCTCAGG
251 TCGCTGCAGT ATCATCACGC TCTGAAAAAG TTGGAGAGTA TATCTCAGAA
301 GCTATGGAGC GTGTGGGCAA CGATGGTGTG ATTACCATCG AAGAATCTCG
351 AGGTATGGAA ACAGAACTTG AAGTGGTTGA AGGCATGCAA TTTGACCGTG
401 GTTACCTGTC TCAATACATG GTCACAGACA ATGAAAAAAT GGTTCAGAC
451 CTTGAAAACC CATTATCTT AATTATGGAT AAAAAAGTGT CAAACATCCA
501 AGACATTTTG CCACTACTTG AGGAAGTTCT TAAAACCAAC CGTCCATTAC
551 TCATTATTGC AGATGATGTG GATGGTGAAG CCCTTCCAAC CCTTGTCTTG
601 AACAAGATTC GTGGTACTTT CAATGTGGTT GCTGTCAAAG CGCCAGGATT
651 TGGTGATCGT CGTAAAGCTA TGCTTGAAGA CATTGCTATC TTGACTGGTG
701 GTACTGTGAT TACAGAGGAT CTAGGACTTG AATTAAAAGA TGCTACAATG
751 ACAGCCCTTG GACAGGCTGC TAAGATTACA GTTGATAAAG ATAGCACAGT
801 AATTGTTGAA GGTTCAGGAA GTTCAGAAGC TATTGCTAAC CGCATTGCAC
851 TGATTAAATC GCAATTAGAA ACAACAACCT CTGACTTTGA CCGTGAAAAA
901 CTACAAGAAC GTTTGGCGAA ATTAGCTGGT GGTGTAGCTG TTATCAAAGT
951 AGGAGCTCCA ACAGAGACAG CTTTAAAAGA AATGAACTT CGCATTGAGG
1001 ATGCTCTAAA TGCCACACGT GCAGCCGTTG AAGAAGGTAT CGTTGCTGGT
1051 GGTGGAACAG CACTTATTAC GGTGATCGAA AAAGTAGCTG CTCTTGAGCT
1101 TGAGGGCGAT GACGCTACTG GACGTAACAT TGTGCTTCGT GCTCTAGAAG
1151 AGCCTGTACG TCAAATTGCT TTAAATGCTG GGTACGAAGG CTCCGTAGTT
1201 ATTGACAAGT TGAAAAACAG CCCTGCAGGA ACAGGATTTA ATGCTGCAAC
1251 AGGTGAGTGG GTTGATATGA TTAAAACAGG AATCATTGAC CCTGTCAAAG
1301 TAACACGATC AGCGCTTCAA AATGCAGCTT CTGTAGCTAG TCTTATTTTG
1351 ACAACAGAAG CAGTTGTTGC TAATAAGCCT GAACCAGCTG CGCCAGCGCC
1401 AGCAATGCCA GCAGGTATGG ATCCAGGAAT GATGGGCGGC TTCTAAGCTC
1451 TCTATAGCAT TAAGGATTAT GAAAAAGAAG TTGGAGACTA AAGGTCTGCT
1501 TCTTACTATG AAAAAAGAAC AAAGCTTGGA TTTGACTCA TGATATCCCA
1551 TCTTTGTTTT TTTAGTTGTG ATATAAAATG CTAATCTTTG TGGTTACAGA
1601 CTTTAAATGT ATTGAAAAAT ACATTGTTTT TCTTTGTCAT GTGCTATCAT
1651 GGAGTCAATG AAAAGTTATT CCCATATATG GGTGTTGGAG GGAAATTTTG
1701 GAGAGATTTT TAAAACCTTT AGAGAATCAA AGGGATTACG ATTAAAAGAT
1751 GTCGCAAAGG CTGGTGTATC AACCTCTCAG CTGTCGCGTT TCGAAAAAGG
1801 GGAGACGGAC TTAACCATAT CGACATTTAT GCTGATTTTG GATGAAAGTA
1851 ACATGCCCAT TAATGAGTTT ATGTATGCTG TCCATGATTT TCATCGTGAC
1901 GACTTAAATG AACTCTTATC CAAAAGTGAG GCATTTTCGTA ACAACTCAAA
1951 ATAGTGATGG CTTGAAGCAG TTACTTCATG CTCAACTAGC ATCAACTGAT

```

FIGURE 7A

2001 AAGAAGGAGA TGTTACGGA TATCTTTTGG CATATCCAGC ATGTCTAAGT
2051 CTAAAGTCTG CTATGGCATG CTATTTTGGG AGTCCCTCAC GCGACTCTGT
2101 CAGTAGCTCT CCTTCAAAGG ATTCACAAAG AAAAGTCGTA ATAAGACATA
2151 GCAGTCAGGC TTGATAAAGC TAGAAATACT CTTTAATTGA AGGTTTAAAG
2201 CTGTCAGACC TATCTCTTCT TTTAGTTCTC ATAAAGCCGC TTCAAAGAAA
2251 GATTCACAGG GCTCGACTTT ACCTTCTGGC TGGATCCATC CTGGGAAGTT
2301 ATCGTGTTGT CTATGGAGTC ATAAAATCAT ATCGTTATGT TTGACACAAA
2351 TATTCTCCCA GTCTTTAACC GTTGCTATCA CCAGATTCAC CACCTTTTAG
2401 TATAGTATAA GAAAAAAGGG GTAAAAGAGT TTCTTTGTTG TTTTTTTGGC
2451 TTAAGGTTTC TTTAAAGTCT TATCTAGTAT ACTAATGTCA TTCCTTAATA
2501 GGATAAGTAT TTGGTTGTAG AAGTATCGTC TTAAACTAAC GCTATCTCAA
2551 CCCGATTCCC ATCTTATTCA CCCCTCCTAT ACCGATAAGG TCTCACAAAG
2601 TGTGAGACCT TATTTTTTGA CTTCAGCTCT AGTTATGGAG AAACCTTGTTG
2651 ATACAAGCTT TTTTGGGTTA TGGTATTATG ATC

FIGURE 7B

1 TGAAGCTATG GAGCGTGTGG GCAACGATGG TGTGATTACC ATCGAAGAAT
 51 CTCGAGGTAT GGAAACAGAA CTTGAAGTGG TTGAAGGCAT GCAATTTGAC
 101 CGTG GTTACC TGTCTCAATA CATGGTCACA GACAATGAAA AAATGGTTGC
 151 AGACCTTGAA AACCCATTTA TCTTAATCAC GGATAAAAAA GTGTCAAACA
 201 TCCAAGACAT TTTGCCACTA CTTGAGGAAG TTCTTAAAC CAACCGTCCA
 251 TTACTCATT TGCAGATGA TGTGGATGGT GAAGCACTTC CAACCCTTGT
 301 CTTGAACAAG ATTCGTGGTA CTTTCAATGT GGTTGCTGTC AAAGCGCCAG
 351 GATTTGGTGA TCGTCGTAAA GCTATGCTTG AAGACATTGC TATCTTGACA
 401 GGTGGTACAG TGATTACAGA GGATCTAGGA CTTGAATTAA AAGATGCTAC
 451 AATGACAGCC CTTGGACAGG CTGCTAAGAT TACAGTTGAT AAAGATAGCA
 501 CAGTAATTGT TGAAGGTTCA GGAAGTTCAG AAGCTATTGC TAACCGTATT
 551 GCACTGATTA AATCGCAATT AGAAACAACA ACTTCTGACT TTGACCGTGA
 601 AAAACTACAA GAACGTTTGG CGAAATTAGC TGGTGGTGTA GCTGTTATCA
 651 AAGTAGGAGC TCCAACAGAG ACAGCTTTAA AAGAAATGAA ACTTCGCATT
 701 GAGGATGCTC TAAATGCTAC ACGTGCAGCC GTTGAAGAAG GTATCGTTGC
 751 TGGTGGTGGA ACAGCACTTA TTACGGTTAT TGAAAAAGTA GCAGCTCTTG
 801 AGCTTGAGGG CGATGATGCT ACTGGACGTA ACATTGTGCT TCGTGCTCTA
 851 GAAGAGCCTG TACGTCAAAT TGCTTTAAAT GCTGGGTACG AAGGCTCCGT
 901 AGTTATTGAC AAGTTGAAAA ACAGCCCTGC AGGAACAGGA TTTAATGCTG
 951 CAACAGGTGA GTGGGTTGAT ATGATTAAAA CAGGAATCAT TGACCCTGTC
 1001 AAAGTAACAC GATCAGCGCT TCAAAATGCA GCTTCTGTAG CTAGTCTTAT
 1051 TTTGACAACA GAAGCAGTTG TTGCTAATAA ACCTGAACCA GCTACGCCAG
 1101 CGCCAGCAAT GCCAGCAGGT ATGGATCCAG GAATGATGGG CGGCTTCTAA
 1151 GCTCTCTATA GCATTAAGGA TTATGAAAAA GAAGTTGGAG ACTAAAGGTC
 1201 TGCTTCTTAC TATGAAAAAA GAACAAAGAT TGGATTTCTGA CTCATGATAT
 1251 CCCATCTTTG TTTTTTTAGT TGTGATATAA AATGCCAATC TTTGTGGTTA
 1301 CAGACT

FIGURE 8

1 TATGGAGCGT GTGGGCAACG ATGGTGTGAT TACCATCGAA GAATCTCGAG
51 GTATGGAAAC AGAACTTGAA GTGGTTGAAG GCATGCAATT TGACCGTGGT
101 TACCTGTCTC AATACATGGT CACAGACAAT GAAAAAATGG TTGCAGACCT
151 TGAAAACCCA TTTATCTTAA TCACGGATAA AAAAGTGTCA AACATCCAAG
201 ATATTTTGCC ACTACTTGAG GAAGTTCTTA AAACCAACCG TCCATTACTC
251 ATTATTGCAG ATGATGTGGA TGGTGAAGCC CTTCCAACCC TTGTCTTGAA
301 CAAGATTCGT GGTACTTTCA ATGTGGTTGC TGTCAAAGCG CCAGGATTTG
351 GTGATCGCCG TAAAGCTATG CTTGAAGACA TTGCTATCTT GACAGGTGGT
401 ACAGTGATTA CAGAGGATCT AGGACTTGAA TTAAAAGATG CTACAATGAC
451 AGCCCTTGGA CAGGCTGCTA AGATTACAGT TGATAAAGAT AGCACAGTAA
501 TTGTTGAAGG TTCAGGAAGT TCAGAAGCTA TTGCTAACCG TATTGCACTG
551 ATTAAATCGC AATTAGAAAC AACAACTTCT GACTTTGACC GTGAAAAACT
601 ACAAGAACG

FIGURE 9

1 AAGCTATGGA GCGTGTGGGC AACGATGGTG TGATTACCAT CGAAGAATCT
51 CGAGGTATGG AAACAGAACT TGAAGTGGTT GAAGGCATGC AATTTGACCG
101 TGGTTACCTG TCTCAATACA TGGTCACAGA CAATGAAAAA ATGGTTGCAG
151 ACCTTGAAAA CCCATTTATC TTGATCACGG ATAAAAAAGT GTCAAACATC
201 CAAGACATTT TGCCACTACT TGAGGAAGTT CTTAAAACCA ACCGTCCATT
251 ACTCATTATT GCAGATGATG TGGATGGTGA AGCCCTTCCA ACCCTTGTCT
301 TGAACAAGAT TCGTGGTACT TTCAATGTGG TTGCTGTCAA AGCGCCAGGA
351 TTTGGTGATC GTCGTAAAGC TATGCTTGAA GACATTGCTA TCTTGACAGG
401 TGGTACAGTG ATTACAGAGG ATCTAGGACT TGAATTAAAA GATGCTACAA
451 TGACAGCCCT TGGACAGGCT GCTAAGATTA CAGTTGATAA AGATAGCACA
501 GTAATTGTTG AAGGTTTCAGG AAGTTCAGAA GCTATTGCTA ACCGTATTGC
551 ACTGATTAAA TCGCAATTAG AGACAACAAC TTCTGACTTT GACCGTGAAA
601 AACTACAAGA ACG

FIGURE 10

1 TATGGAGCGT GTGGGCAACG ATGGTGTGAT TACCATCGAA GAATCTCGAG
51 GTATGGAAAC AGAACTTGAA GTGGTTGAAG GCATGCAATT TGACCGTGGT
101 TACCTGTCTC AATACATGGT CACAGACAAT GAAAAAATGG TTGCAGACCT
151 TGAAAACCCA TTTATCTTAA TCACGGATAA AAAAGTGTCA AACATCCAAG
201 ACATTTTGCC ACTACTTGAG GAAGTTCTTA AAACCAACCG TCCATTACTC
251 ATTATTGCAG ATGATGTGGA TGGTGAAGCC CTTCCAACCC TTGTCTTGAA
301 CAAGATTCGT GGTACTTTCA ATGTGGTTGC TGTCAAAGCG CCAGGATTTG
351 GTGATCGCCG TAAAGCTATG CTTGAAGACA TTGCTATCTT GACAGGTGGT
401 ACAGTGATTA CAGAGGATCT AGGACTTGAA TTAAAAGATG CTACAATGAC
451 AGCCCTTGGA CAGGCTGCTA AGATTACAGT TGATAAAGAT AGCACAGTAA
501 TTGTTGAAGG TTCAGGAAGT TCAGAAGCTA TTGCTAACCG TATTGCACTG
551 ATTAAATCGC AATTAGAGAC AACAACTTCT GACTTTGACC GTGAAAAACT
601 ACAAGAACGT TTGGCGAAAT TAGCTGGTGG TGTAGCTGTT ATCAAAGTAG
651 GAGCTCCAAC AGAGACAGCT TTAAGAGAAA TGAAACTTCG CATTGAGGAC
701 GCTCTAAATG CTACACGTGC AGCCGTTGAA GAAGGTATCG TTGCTGGTGG
751 TGGAACAGCA CTTATTACGG TTATTGAAAA AGTAGCAGCT CTTGAACTTG
801 AGGGCGATGA TGCTACTGGA CGTAACATTG TGCTTCGTGC TCTAGAAGAG
851 CCTGTACGTC AAATTGCTTT AAATGCTGGG TACGAAGGCT CCGTAGTTAT
901 TGACAAGTTG AAAACAGCC CTGCAGGAAC AGGATTTAAT GCTGCAACAG
951 GTGAGTGGGT TGATATGATT AAAACAGGAA TCATTGACCC TGTCAAAGTA
1001 ACACGATCAG CGCTTCAAAA TGCAGCTTCT GTAGCTAGTC TGATTTTGAC
1051 AACAGAAGCA GTTGTTGCTA ATAAGCCTGA ACCAGCTGCG CCAGCGCCAG
1101 CAATGCCAGC AGGTATGGAT CCAGGAATGA TGGGCGGCTT CTAAGGTCTC
1151 TATAGCATTA AGGATTATGA AAAAGAAGTT GAGACTAAAG GTCTGCTTCT
1201 TACTATGAAA AAAGAACAAA GATTGGATTT CGACTCATGA TATCCCATCT
1251 TTGTTTTTTA GCTGGGATAT AAAATGCTAA TCTTTGCGGG TACCAGACAT
1301 TAAAG

FIGURE 11

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1      TGGATTTTTA ATTTTAAAT TAATTAAAAT AAACGTCGTG GCGGCGATTA
51     AAAATAGAAC AAGTTGTATG TAAATGACTG CTTTAGTCAG TTCTATGCCA
101    CTATATTGTA CAAATGGTAA TTTTTTTACA ATGAGAAGCG GTAAAAATTG
151    AGACCATATA TAAATAATAA CAGTTAGCAA TGATGCCCAT AATCTTGTCA
201    TAATTTTCCCT CCAAATATTG TTTATAATTT ATTTTATCGT AAATAACTTG
251    AAGTTACAAA ACTTAATTAC AGAGGTTATG ACTTGAAATT TTGACCAAAT
301    TTGATTATTA TAAATGTATG TTAGCACTCT TTAATGTTAA GTGCTAAACT
351    TTAGGTTTTTT TAAGGAGGAA CAATCATGCT AAAACCAATT GGAAATCGTG
401    TGATTATTGA GAAAAAGAA CAAGAACAAA CAACTAAAAG TGGTATTGTT
451    TTAAGTATA GTGCTAAAGA AAAATCAAAC GAAGGCGTTA TCGTTGCAGT
501    AGGAAGTGA CGTCTATTAA ATGATGGTAC AAGAGTGA CTGGAAGTGA
551    AAGAAGGGGA CCGTGTCTGT TTCCAACAAT ATGCTGGTAC AGAAGTTAAA
601    CGAGATAATG AAACATATCT AGTATTAAAT GAAGAAGATA TTTTAGCGGT
651    AATTGAATAA TATAAAATTA AATTCATAGA TAAATTGTAA AGAACGAAAA
701    TGAAATATGA CTAAACAAAT GGAGGTTTAT CATTTATGGT TAAACAATTG
751    AAATTCTCTG AAGATGCACG TCAAGCAATG TTACGTGGTG TAGACCAATT
801    AGCAAATGCA GTTAAAGTAA CGATTGGTCC TAAAGGACGT AATGTTGTAT
851    TAGATAAAGA GTTTACAGCA CCTTTAATTA CGAACGATGG TGTAAAGATT
901    GCTAAAGAAA TCGAATTAGA AGATCCATAT GAAAATATGG GGGCTAAACT
951    AGTTCAAGAA GTTGCAAATA AGACAAATGA AATTGCTGGT GACGGTACGA
1001   CAACTGCAAC AGTATTAGCT CAAGCAATGA TTCAAGAAGG CTTGAAAAAT
1051   GTTACAAGTG GTGCGAACCC AGTTGGTTTA CGTCAAGGTA TCGACAAAGC
1101   AGTTAAAGTT GCTGTAGAAG CATTACATGA AAATTCTCAA AAAGTTGAAA
1151   ATAAAAATGA AATAGCGCAA GTAGGTGCGA TTTGAGCAGC AGATGAAGAA
1201   ATTGGACGTT ATATTTCTGA AGCTACGGAA AAAGTAGGTA ACGATGGTGT
1251   CATTACAATT ATTACAATTG AAGAATCAAA TCGACTAAAC ACTGAACTAG
1301   AATTGGGTAT GCAATTTGAT CGTGGTTATC AATCACCATA TATGGTTACT
1351   GATTCAGATA AAATGGTTGC TGAATTAGAA CGCCCATACA TTTTAGTAAC
1401   AGATAAGAAA ATCTCGTCTT TCCAAGATAT CTTACCTTTA TTAGAACAAG
1451   TGGTTCAATC TAATCGTCCA ATCTTAATTG TAGCTGATGA AGTTGAAGGC
1501   GATGCATTAA CAAATATCGT GCTAAACCGA ATGCGTGGCA CATTACAGC
1551   TGTTGCAGTA AAGGCGCCTG GTTTCGGTGA TCGTCGTAAA GCAATGTTAG
1601   AAGATTTAGC TATTTTAACT GGTGCGCAAG TGATTACTGA TGATTTAGGC
1651   TTAGATTTAA AAGATGCATC AATTGATATG TTAGGTACTG CAAGTAAAGT
1701   AGAAGTAACT AAAGATAATA CCACTGTTGT TGATGGTGAC GGTGACGAAA
1751   ACAGCATTGA TGCACGTGTA AGCCAATTGA AATCTCAAAT TGAAGAACT
1801   GAATCTGACT TTGATCGTGA AAAATTACAA GAGCGCTTAG CTAAATTAGC
1851   AGGTGGTGTT GCAGTTATTA AAGTAGGTGC AGCAAGTGAA ACAGAGCTTA
1901   AAGAACGTAA ATTACGTATT GAAGATGCAT TAAATTCTAC ACGTGCAGCA
1951   GTTGAAGAAG GTATTGTTGC AGGTGGTGGT ACTGCATTAG TAAATGTTTA

```

FIGURE 12A

2001 CCAAAAAGTA AGTGAAAATG AAGCAGAAGG TGACATTGAA ACAGGTGTAA
2051 ATATTGTACT TAAAGCACTA ACTGCACCAG TTCGTCAAAT TGCTGAAAAT
2101 GCAGGATTAG AAGGTTCTGT TATTGTAGAA CGTTTGAAAA ACGCAGAGCC
2151 GGGTGTGGT TTTAACGGTG CTACAAACGA GTGGGTTAAT ATGTTAAGAA
2201 GAGGTATCGT TGATCCAACCT AAAGTAACAC GCTCAGCATT ACAACATGCT
2251 GCAAGTGTTG CAGCAATGTT CTTAACGACT GAAGCGGTTG TAGCATCAAT
2301 TCCAGAAAAA AATAATGACC AACCTAACAT GGGTGGCATG CCGGGAATGA
2351 TGTAACACGA CTGTTAAACG CTGATTTTAT AAAGTTGTAA TATTGGGTGG
2401 CCGTAATTTG GTCATAGGAA ATTTTAAAAT AAATCTTTTG AGACGTTTTT
2451 CATGAGTTCA CTAAACTTTT GGGAACCGTC TTTTTTGTAT GAGCCCGTAA
2501 TCTTAGCGTA GATGTTTATA GTGGTGTTTA TATCTTTGTG TCGCAAGCGT
2551 TCTTGTATTT CCTTAATATG CACACCAGCC TCTATAAGTA ACGCGCAATG
2601 AGTATGACGA AATGAATGAG TGCTTATTTG TTTATTAGTT ATGTTAGTCT
2651 TTTTAAGGTA TAGCTTTTAT CCATAACTGT AGTTTCTTAA TTACGAGGGG
2701 ATAGCCGTTG AC

FIGURE 12B


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1  CAATCATGCT AAAACCAATT GGAAATCGTG TGATTATTGA GAAAAAAGAA
51  CAAGAACAAA CAACTAAAAG TGGTATTGTT TTAAGTATA GTGCTAAAGA
101 AAAATCAAAC GAAGGCGTTA TCGTTGCAGT AGGAACAGGA CGCCTATTAA
151 ATGATGGTAC AAGAGTGAAG CCTGAAGTGA AAGAAGGGGA CCGTGTCTGT
201 TTCCAACAAT ATGCAGGTAC AGAAGTTAAA CGAGATAATG AGACTTATTT
251 AGTTTTTAAAT GAAGAAGATA TTTTAGCGGT AATTGAATAA TATAGAATAT
301 AATTCATAGA TAGATTGTAA AGAACGAAAA TGAAATATGA CTAAACAAAT
351 GGAGGTTTAT CATTTATGGT TAAACAATTG AAATTCTCTG AAGATGCACG
401 TCAAGCAATG TTACGCGGTG TTGACCAATT AGCAAATGCA GTTAAAGTAA
451 CGATTGGTCC TAAAGGACGT AATGTTGTAT TAGATAAAGA GTTTACAGCA
501 CCTTTAATTA CGAACGATGG TGTAACGATT GCTAAAGAAA TCGAATTAGA
551 AGATCCATAT GAAAATATGG GGGCTAAACT AGTTCAAGAA GTCGCAAATA
601 AGACAAATGA AATTGCTGGT GACGGTACGA CAACTGCAAC AGTATTAGCT
651 CAAGCAATGA TTCAAGAAGG CTTGAAAAAT GTTACAAGTG GTGCGAACCC
701 AGTTGGTTTA CGACAAGGTA TCGACAAAGC AGTTAAAGTT GCTGTTGAAG
751 CGTTACATGA AAATTCTCAA AAAGTTGAAA ATAAAAATGA AATTGCGCAA
801 GTAGGTGCTA TTTACAGCAGC AGATGAAGAA ATTGGACGCT ATATTTTACA
851 AGCTATGGAA AAAGTAGGTA ACGATGGTGT CATTACAATT GAAGAATCAA
901 ATGGACTAAA CACTGAACTA GAAGTGGTTG AAGGTATGCA ATTTGATCGT
951 GGTTATCAAT CACCGTATAT GGTACTGAT TCAGATAAAA TGGTTGCTGA
1001 ATTAGAACGC CCATACATTT TAGTAACAGA TAAGAAAAATC TCGTCTTTCC
1051 AAGATATCTT ACCTTTATTA GAACAAGTGG TTCAATCTAA TCGTCCAATC
1101 TTAATTGTAG CTGATGAAGT TGAAGGCGAT GCATTAAACA ATATCGTGCT
1151 AAACCGTATG CGTGGCACAT TTACAGCTGT TGCAGTAAAA GCACCTGGTT
1201 TTGGTGATCG TAGAAAAGCG ATGCTTGAAG ATTTAGCTAT TTTAACTGGT
1251 GCGCAAGTGA TTACTGATGA TTTAGGCTTA GATTAAAAAG ATGCATCAAT
1301 TGATATGTTA GGTACTGCAA GTAAAGTAGA AGTAACTAAA GATAATACCA
1351 CTGTTGTTGA TGGTGACGGT GACGAAAAACA GCATTGATGC ACGTGTTAGC
1401 CAATTGAAAT CTCAAATTGA AGAACTGAA TCTGACTTTG ATCGTGAAAA
1451 ATTACAAGAG CGCTTAGCTA AATTAGCAGG TGGTGTGCA GTTATCAAAG
1501 TAGGTGCAGC AAGTGAAACA GAGCTTAAAG AACGTAAATT ACGTATTGAA
1551 GATGCATTAA ATTCTACACG TGCAGCAGTT GAAGAAGGTA TTGTTGCAGG
1601 TGGTGGTACT GCATTAGTAA ATGTTTACCA AAAAGTAAGT GAAATTGAAG
1651 CTGAAGGTGA CATTGAAACA GGTGTAAATA TTGTACTTAA AGCATTAACT
1701 GCACCAGTTC GTCAAATTGC TGAAAAATGCA GGATTAGAAG GTTCTGTTAT
1751 TGTAGAACGT TTGAAAAACG CAGAGCCGGG TGTGGTTTTT AACGCTGCTA
1801 CAAACGAGTG GGTAAATATG TTAGAAGAAG GTATCGTTGA TCCAATAAAA
1851 GTAACACGCT CAGCATTACA ACATGCTGCA AGTGTTGCAG CAATGTTCTT
1901 AACGACTGAA GCGGTTGTAG CATCAATTCA GAAAAAATA TGACCACCTA
1951 CATGGTGG

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FIGURE 13

1 CAATCATGCG TAAACCCATT GGAAATCGTG TGATTATGAG AAAAAAGAAC
 51 AAGAACAAAC AACTAAAAGT GGTATTGTTT TAACTGATAG TGCTAAAGAA
 101 AAATCAAACG AAGGCGTTAT CGTTGCAGTA GGAAGTGGAC GCCTATTAAA
 151 TGATGGTACA AGAGTGACTC CTGAAGTGAA AGAAGGGGAC CGTGTCTGTG
 201 TCCAACAATA TGCTGGTACA GAAGTTAAAC GAGATAATGA AACATATCTG
 251 GTATTAAATG AAGAAGATAT TTTAGCAGTT ATTGAATAAT ACAGAACTTA
 301 ATTCATAAAT AAATTAAATA GAACGAAAAT GAAACACAAC TAAACAAATG
 351 GAGGTTTATC ATTTATGGTT AAACAATTGA AATTCTCTGA AGATGCACGT
 401 CAAGCAATGT TACGTGGTGT TGACCAACTT GCAAATGCAG TTAAAGTAAC
 451 GATTGGTCCT AAAGGACGTA ATGTTGTATT AGATAAAGAG TTTACAGCAC
 501 CTTTAATTAC GAATGATGGT GTGACGATTG CTAAAGAAAT CGAATTAGAA
 551 GATCCATATG AAAATATGGG GGCTAAACTA GTTCAAGAAG TCGCAAATAA
 601 GACAAATGAA ATTGCTGGTG ACGGTACGAC AACTGCAACA GTATTAGCTC
 651 AAGCAATGAT TCAAGAAGGC TTGAAAAATG TTACAAGTGG TGCGAACCCA
 701 GTTGGTTTAC GACAAGGTAT CGACAAAGCA GTTAAAGTTG CTGTTGAAGC
 751 GTTACATGAA AATTCTCAAA AAGTTGAAAA TAAAAATGAA ATTGCGCAAG
 801 TAGGTGCGAT TTCAGCAGCA GATGAAGAAA TTGGACGTTA TATTTCTGAA
 851 GCTATGAAA AAGTAGGTAA CGATGGTGTC ATTACAATTG AAGAATCAAA
 901 TGGACTAAAC ACTGAACTAG AAGTGGTTGA AGGTATGCAA TTTGATCGTG
 951 GTTATCAATC ACCATATATG GTTACTGATT CAGATAAAAT GGTTGCTGAA
 1001 TTAGAACGCC CATACATTTT AGTGACAGAT AAGAAAATCT CATCATTTCA
 1051 AGATATCTTA CCTTTACTAG AACAAGTGGT TCAATCTAAT CGTCCAATCT
 1101 TAATTGTAGC TGATGAAGTT GAAGGCGATG CATTACAAA TATCGTACTA
 1151 AACCGCATGC GTGGTACATT TACAGCTGTT GCTGTAAAAG CACCTGGTTT
 1201 TGGTGATCGT AGAAAAGCGA TGCTTGAAGA TTTAGCTATT TTAAGTGGTG
 1251 CGCAAGTGAT TACTGATGAT TTAGGCTTAG ATTTAAAAGA TGCATCAATA
 1301 GATATGTTAG GTACTGCAAG TAAAGTAGAA GTAAGTAAAG ATAATACAAC
 1351 TGTGTTGAT GGTGACGGTG ACGAAAACAG CATTGATGCA CGTGTAAGCC
 1401 AATTGAAATC TCAAATTGAA GAACTGAAT CTGACTTTGA TCGTGAAAAA
 1451 TTACAAGAGC GCTTAGCTAA ATTAGCAGGC GGTGTTGCAG TTATCAAGGT
 1501 AGGTGCAGCA AGTGAAACAG AACTTAAAGA ACGTAAATTA CGTATTGAAG
 1551 ATGCTTTAAA CTCTACACGT GCAGCAGTTG AAGAAGGTAT TGTTGCAGGT
 1601 GGTGTTACTG CACTAGTAAA TGTTTACCAA AAAGTAAGTG AAATTGAAGC
 1651 TGAAGGCGAC ATTGAAACAG GTGTGAATAT TGTACTTAAA GCATTAAGT
 1701 CACCAGTTCG CCAAATTGCT GAAAATGCAG GATTAGAAGG CTCTGTCATC
 1751 GTTGAACGCT TGAAAAATGC AGAACCAGGT GTTGGATTTA ACGCTGCTAC
 1801 AAACGAGTGG GTTAATATGT TAGAAGCAGG TATCGTTGAT CCAACTAAAG
 1851 TAACACGCTC AGCATTACAA CATGCAGCAA GTGTTGCGGC AATGTTCTTA
 1901 ACTACAGAAG CAGTAGTGGC TTCAATTCCT GAAAAAATAT GACCACCTAC
 1951 ATGGTGG

FIGURE 14

1 GATCGCGTCG TTATCCGTCG CAGCGAGGAA GAGACCAAGA CCGCAGGCGG
51 CATCGTGCTG CCGGGTTCCG CCGCCGAGAA GCCGAACCGC GGTGAAGTGG
101 TAGCCGTAGG TACCGGTCGT GTACTGGACA ACGGCGAAGT GCGCGCTCTG
151 GCAGTGAAGG TGGGCGACAA GGTGGTCTTC GGGCCGTACT CCGGCAGCAA
201 CGCCATCAAG GTCGATGGCG AGGAAGTCT GGTGATGGGC GAGTCCGAAA
251 TCCTCGCCGT CCTGGAAGAC TGATCGGTCT CCCACTCCGT TTTCACCGAA
301 TTCGATTTAG AGGAAAGAGA ACATGGCTGC CAAAGAAGTT AAGTTCGGCG
351 ATTCCGCTCG CAAGAAAATG CTGGTCGGCG TGAACGTGCT GGCCGATGCC
401 GTCAAGGCCA CCCTCGGCCC GAAAGGCCGC AACGTGGTTC TGGACAAGTC
451 CTTTGGCGCT CCGACCATCA CCAAGGACGG CGTTTCCGTC GCCAAGGAAA
501 TCGAGCTGAA AGACAAGTTC GAGAACATGG GCGCCCAACT GGTGAAAGAC
551 GTTGCCCTCAA GGCCAACGGA CGCTGCCGGT GACGGCACCA CCACCGCTAC
601 CGTCCTGGCC CAGGCCATC

FIGURE 15A

1 CCATCATCGA TGGCGCCGGT GTGCAGGCTG ACATCGAAGC CCGCGTCCTG
51 CAGATCCGCA AGCAGATCGA GGAAACCACT TCCGACTACG ACCGCGAGAA
101 GCTGCAAGAG CGCCTGGCCA AGCTGGCCGG CGGTGTTGCC GTGATCAAGG
151 TAGGCGCTGC CACCGAAGTC GAGATGAAAG AGAAGAAAGC CCGCGTCGAA
201 GACGCCCTGC ACGCTACCCG TGCAGCGGTG GAAGAGGGCG TGGTTCCCGG
251 CGGCGGCCGTG GCCCTGGTTC GTGCCCTGCA GGCCATCGAA GGCCTGAAGG
301 GTGACAACGA GGAGCAGAAC GTCGGTATCG CCCTGCTGCG TCGCGCCGTC
351 GAAGCGCCGC TGCGCCAGAT CGTGGCCAAC GCCGGCGACG AGCCGAGCGT
401 GGTGGTCGAC AAGGTCAAGC AGGGCTCCGG CAACTATGGC TTCAACGCTG
451 CCACCGGCGT GTACGGCGAC ATGATCGAGA TGGGCATCCT GGACCCGGCC
501 AAGGTCAC TC GTTCCGCTCT GCAGGCCGCG GCCTCCATCG GCGGTCTGAT
551 GATCACC

FIGURE 15B

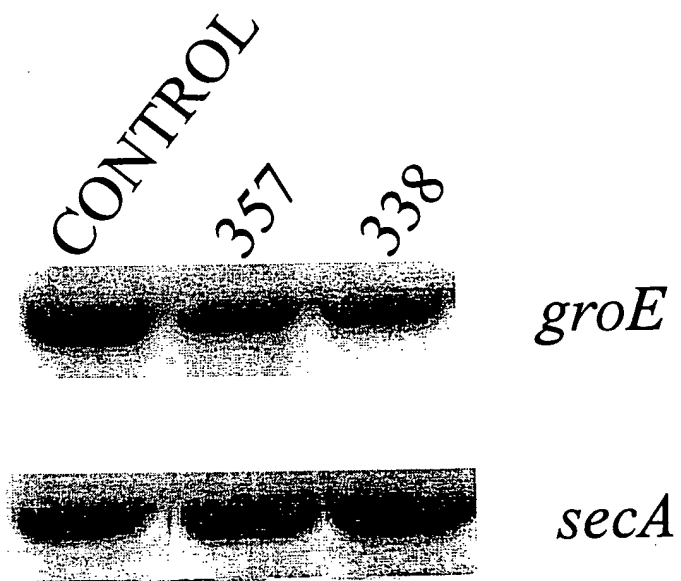


FIGURE 16

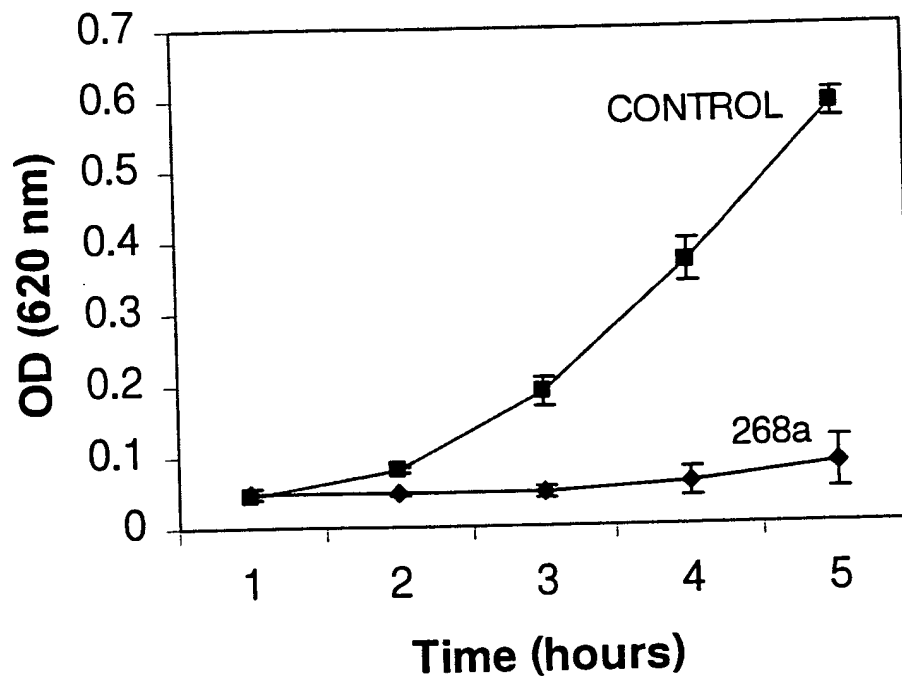


FIGURE 17

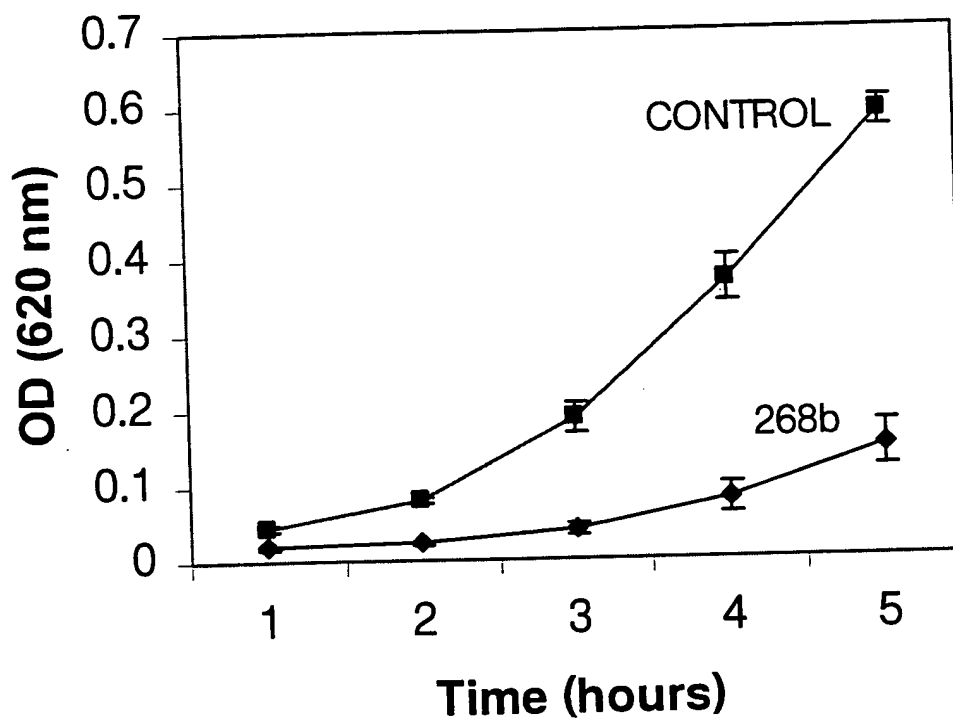


FIGURE 18

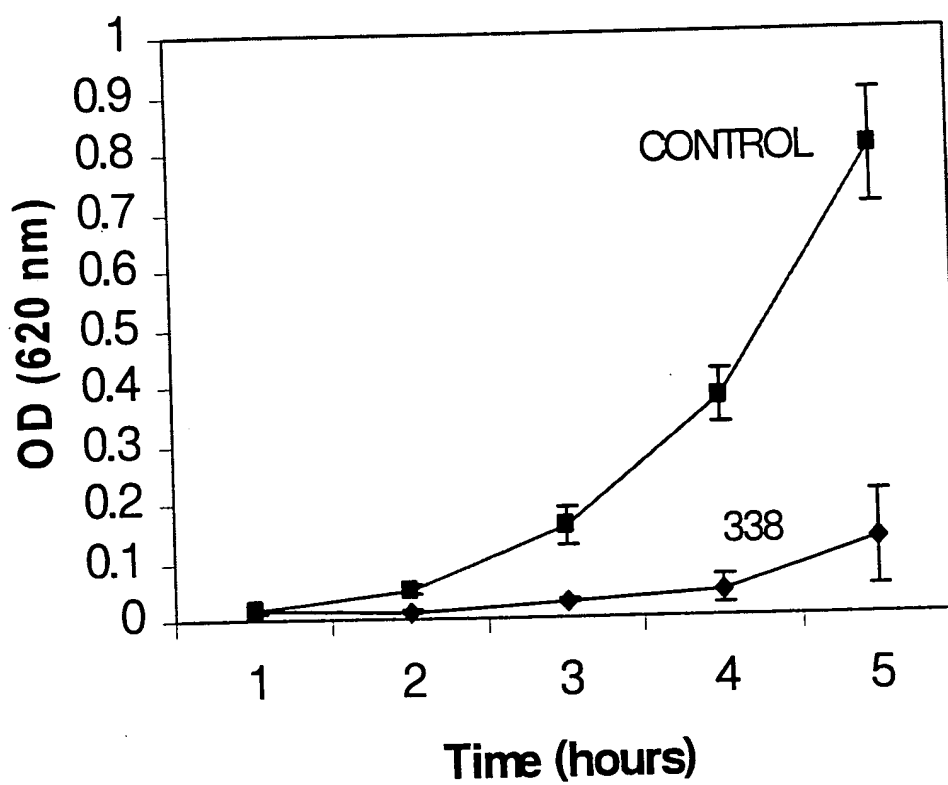


FIGURE 19

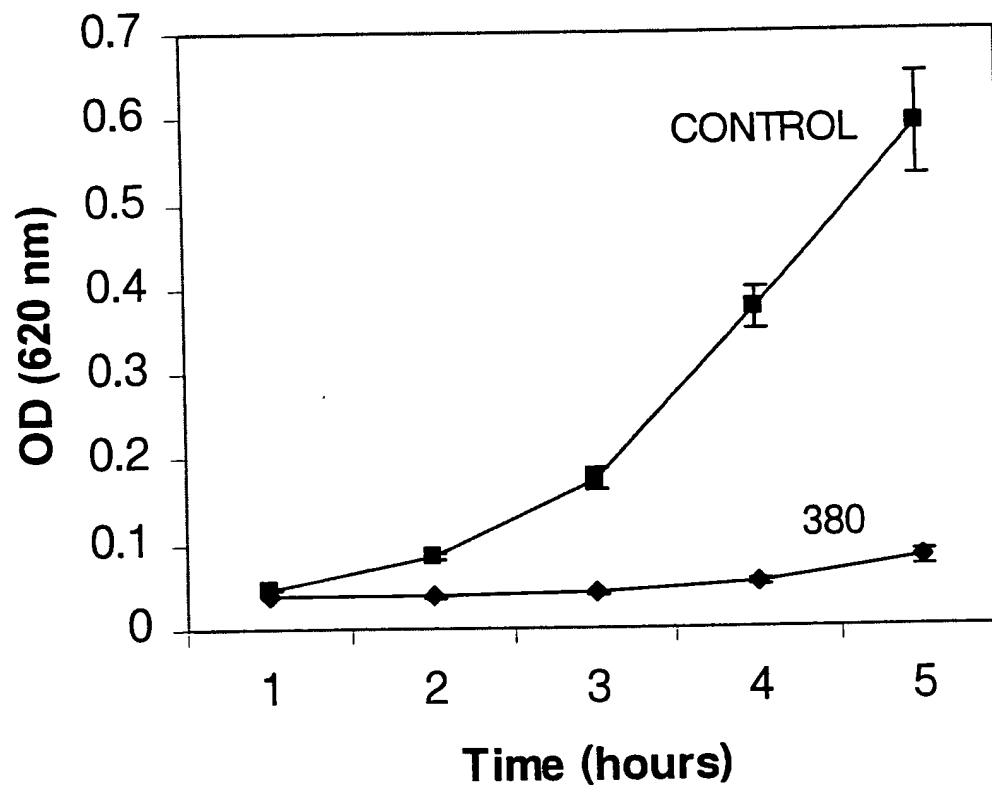


FIGURE 20

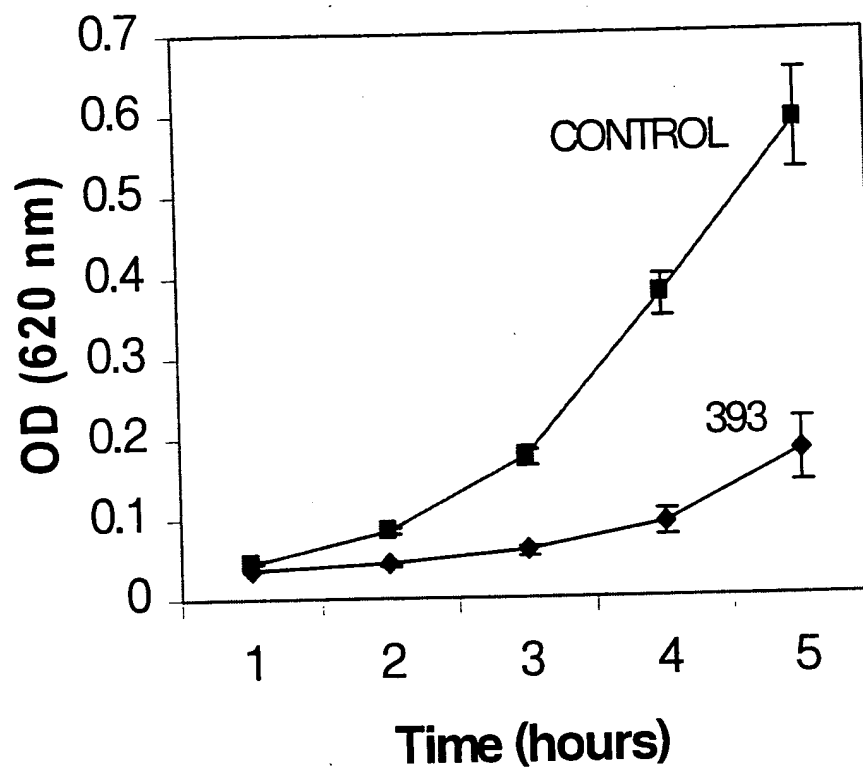


FIGURE 21

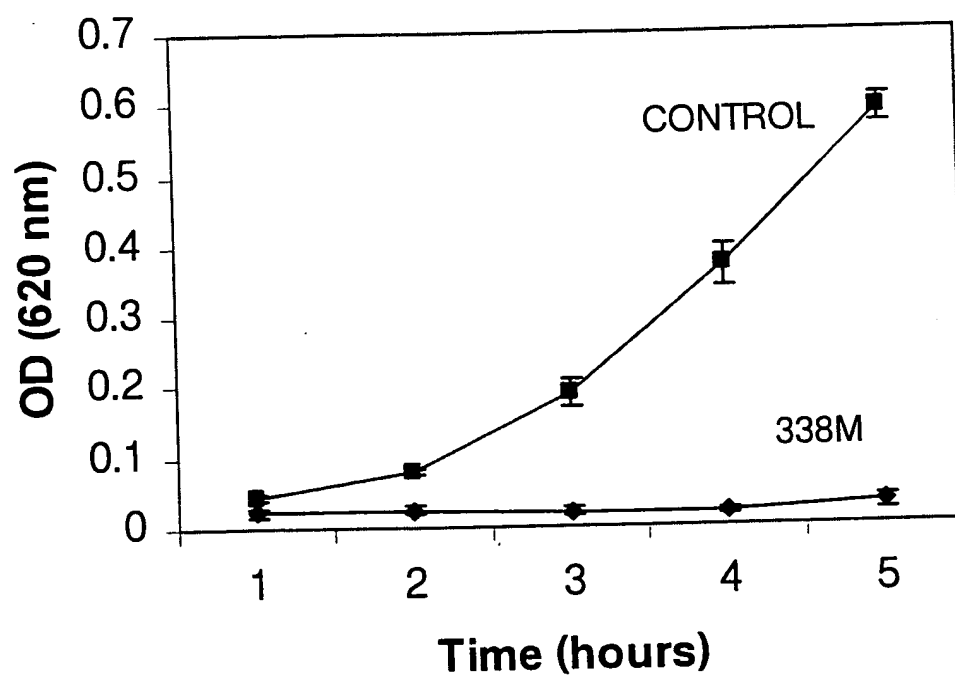


FIGURE 22

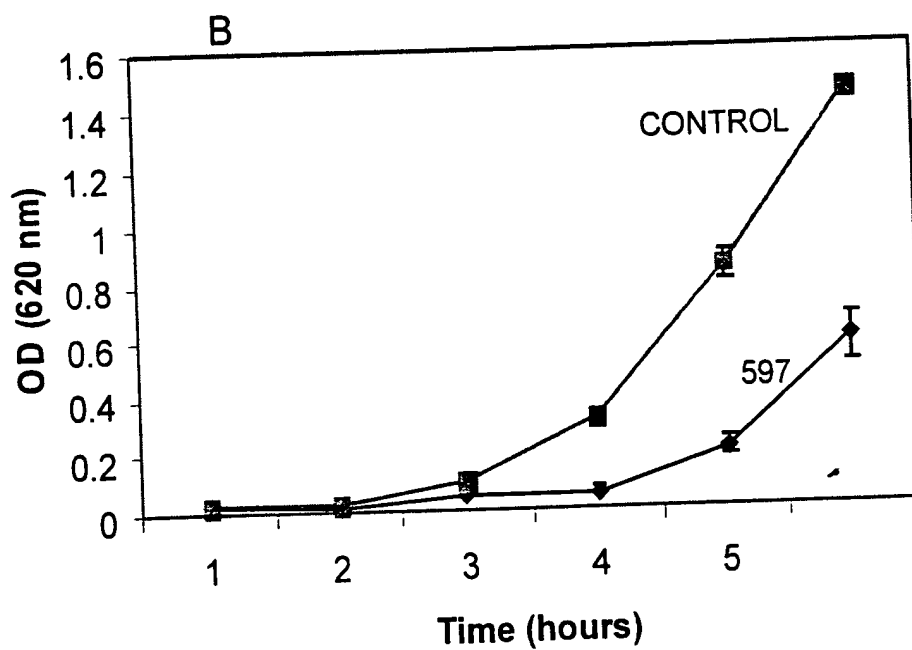
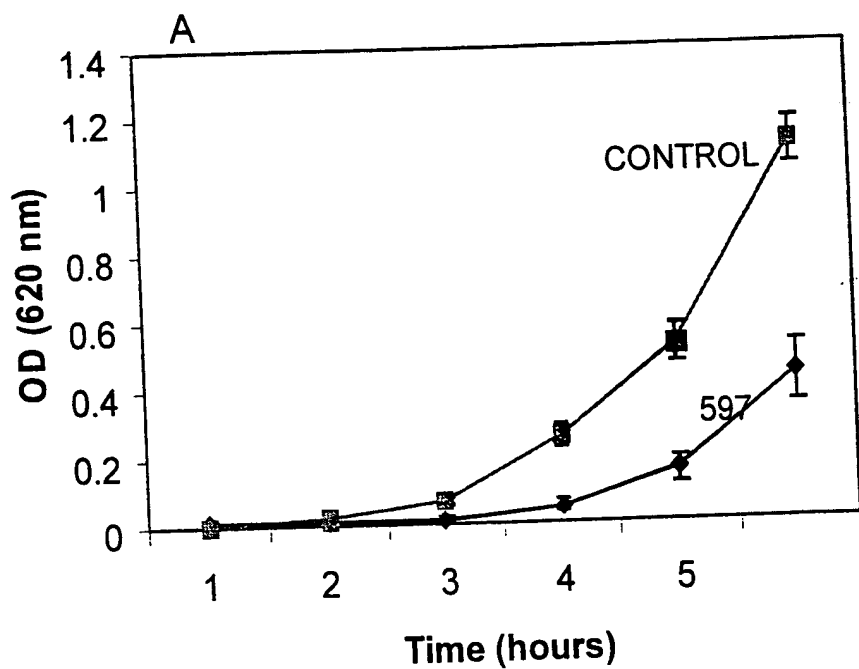


FIGURE 23

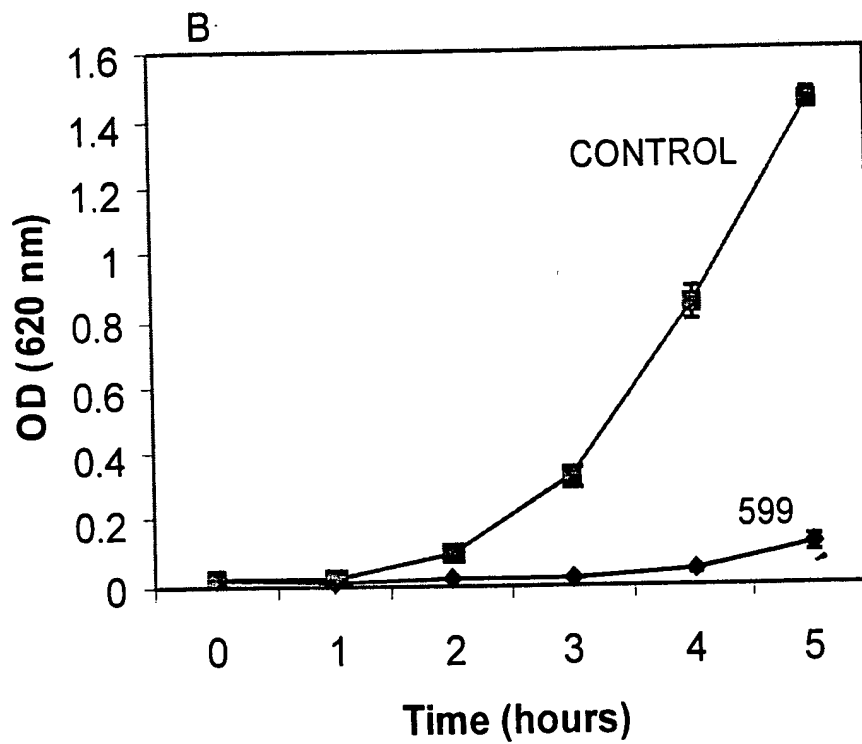
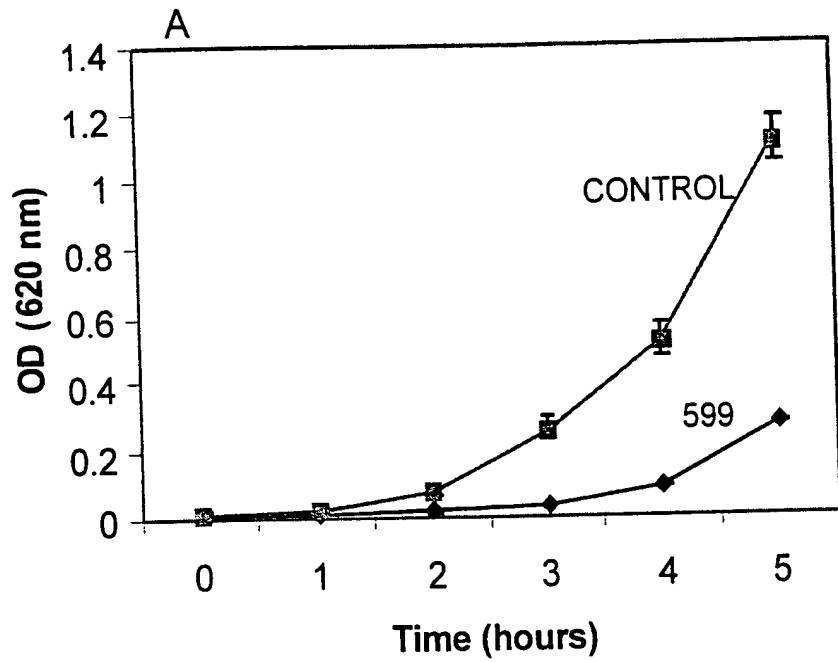


FIGURE 24

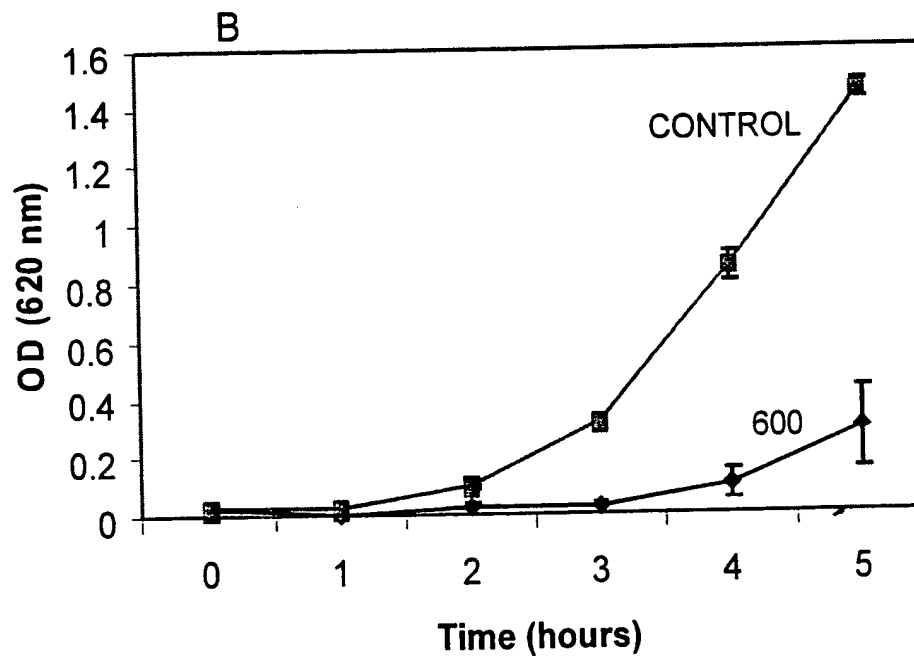
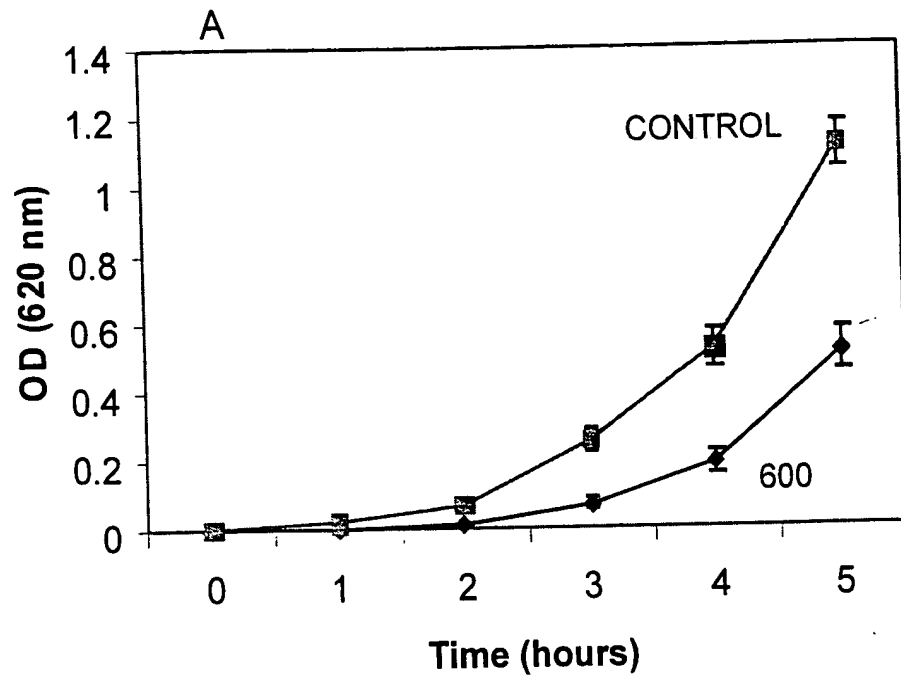


FIGURE 25

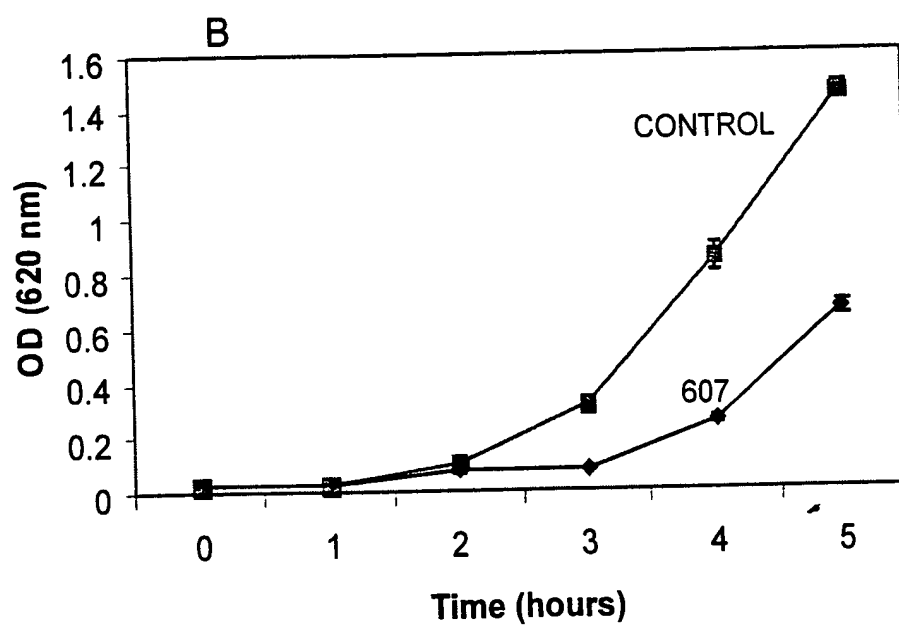
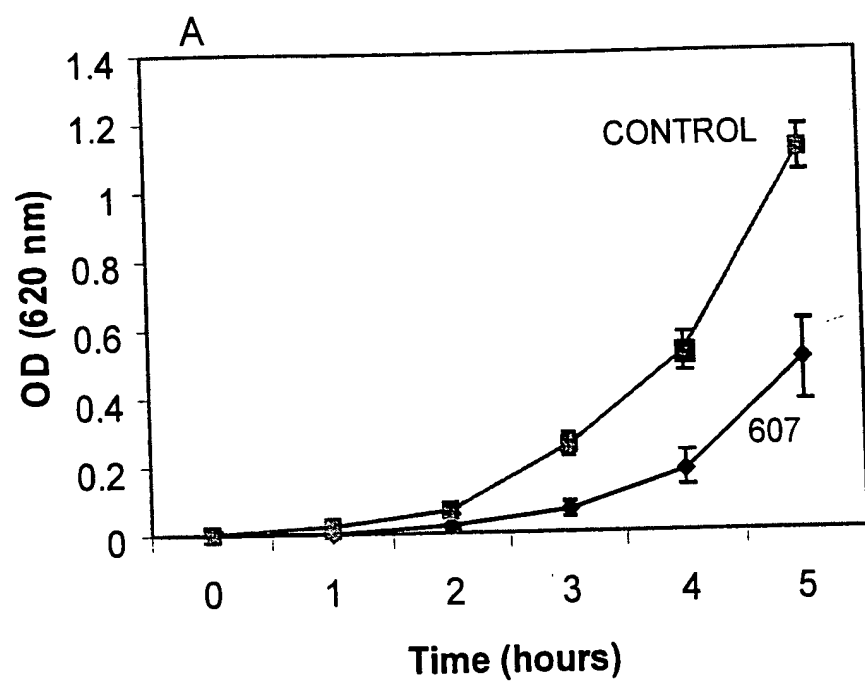


FIGURE 26

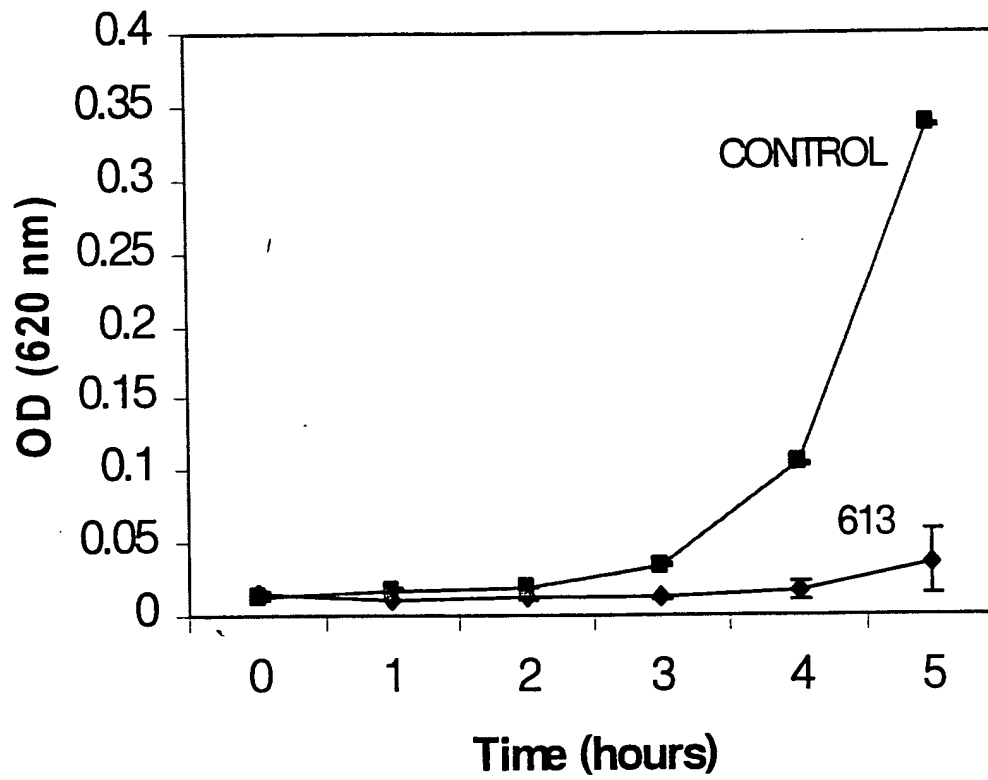


FIGURE 27

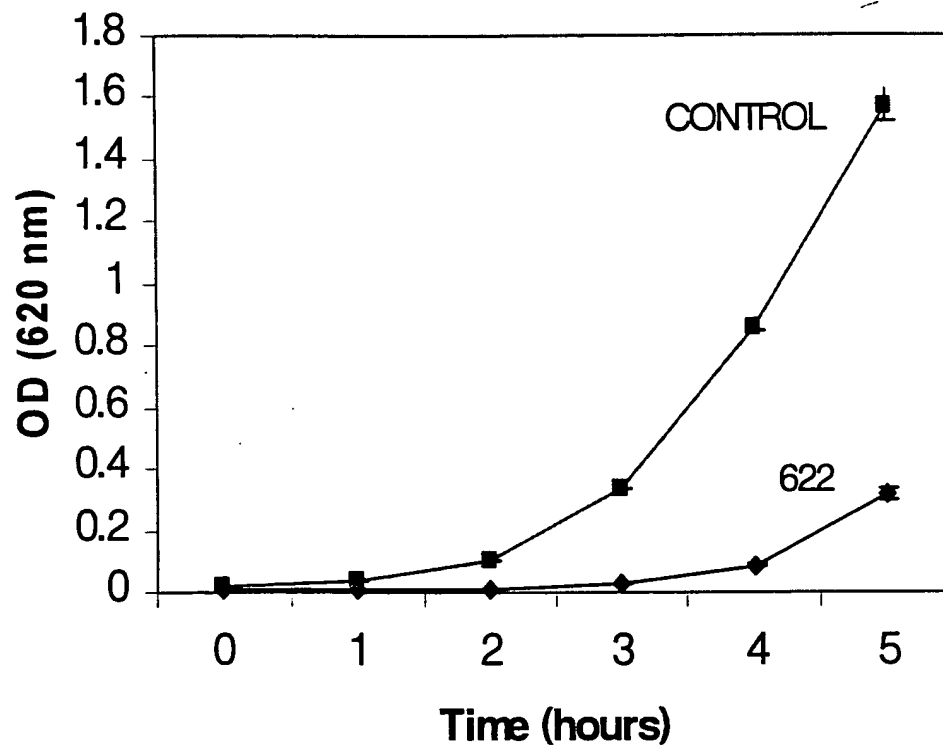


FIGURE 28

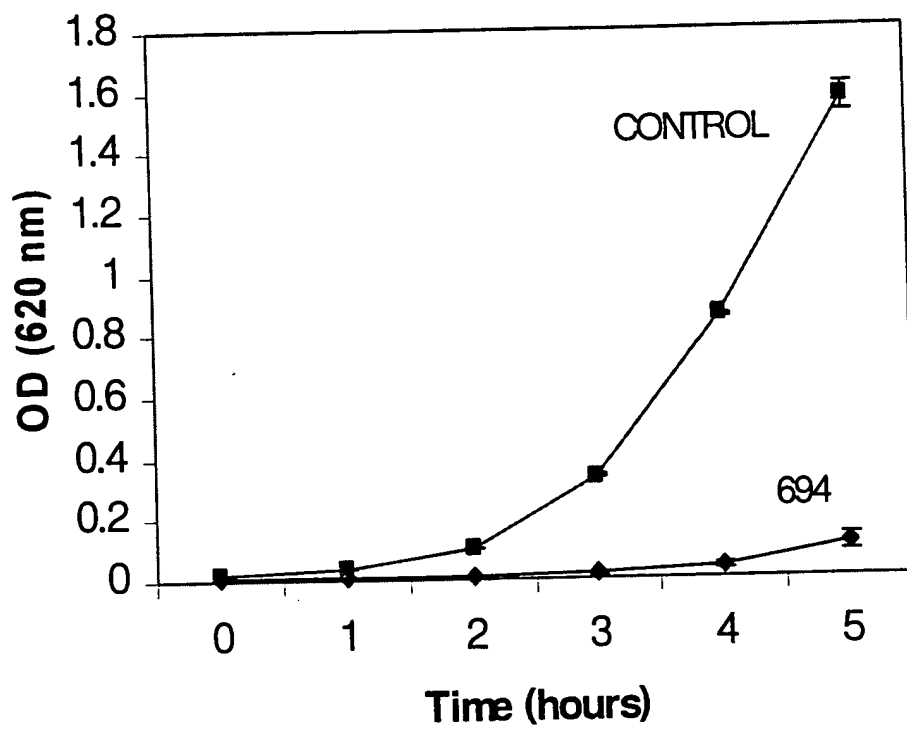


FIGURE 29

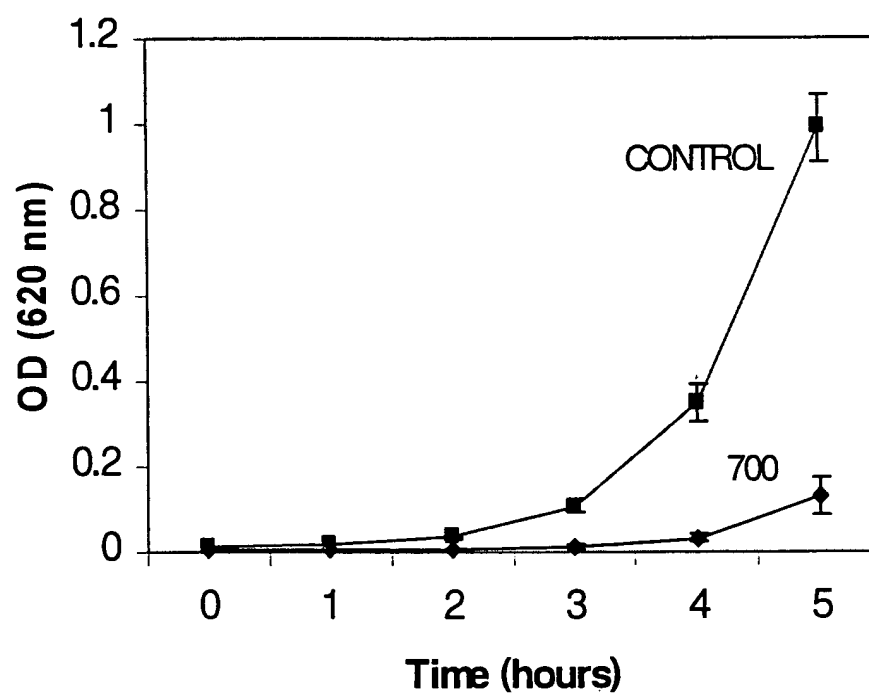


FIGURE 30

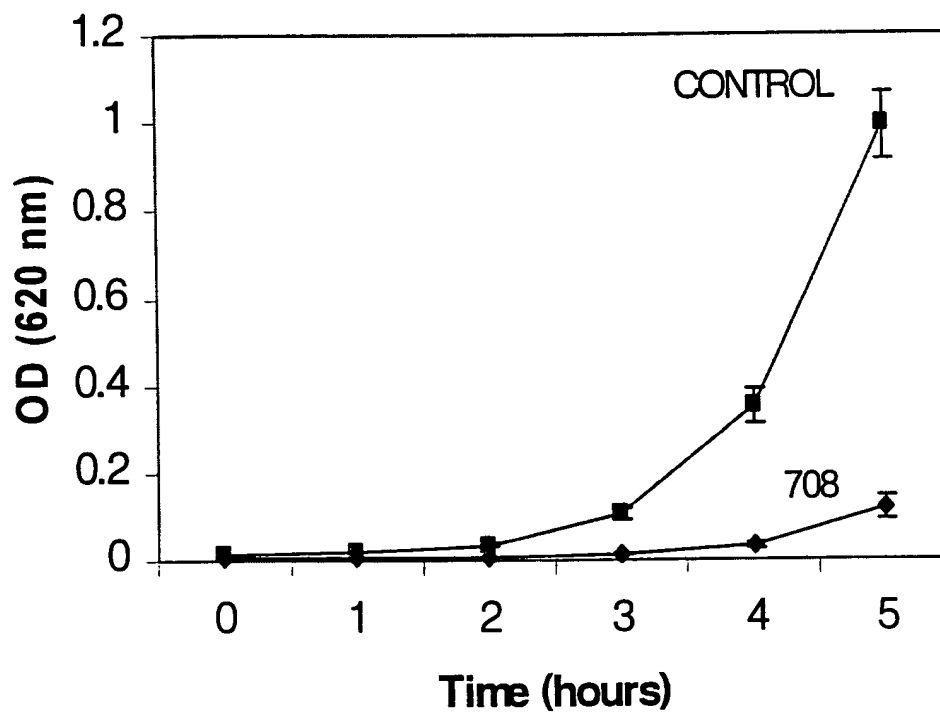


FIGURE 31

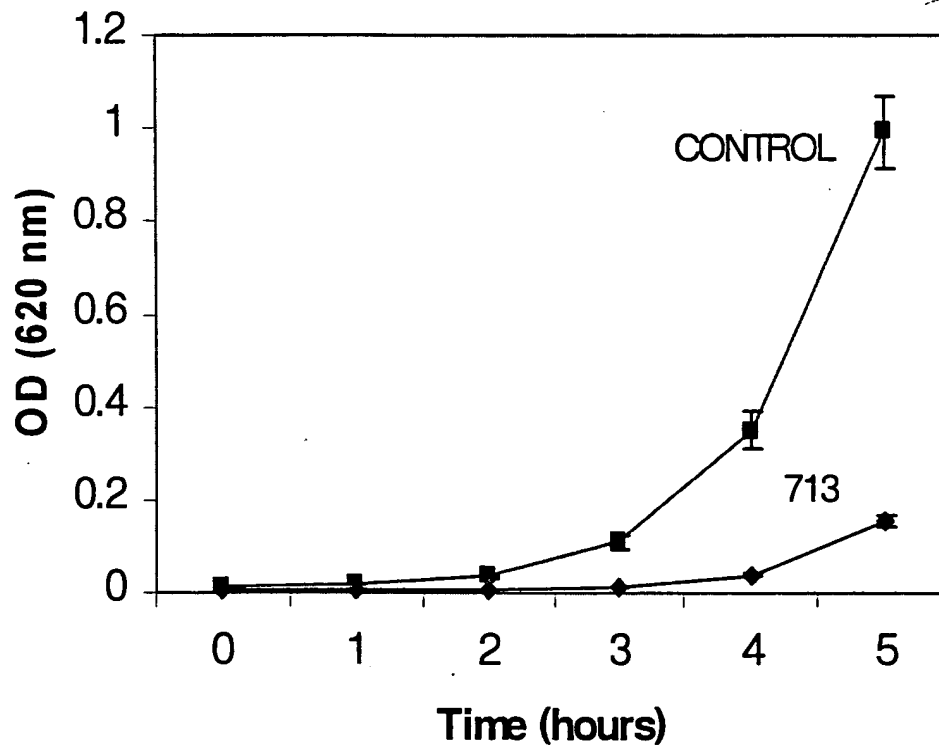


FIGURE 32

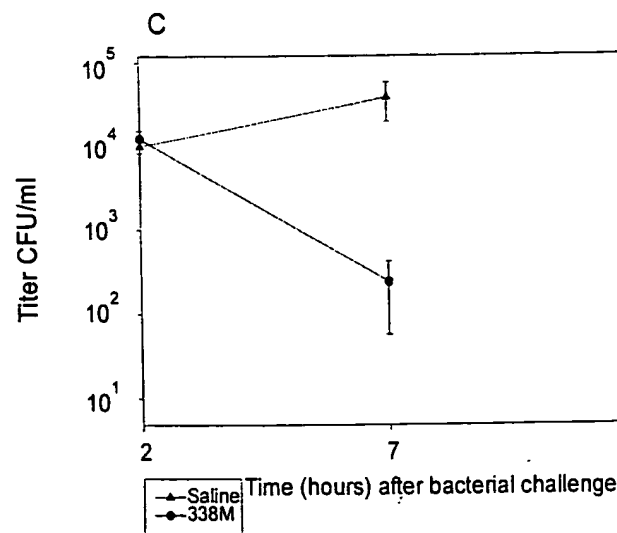
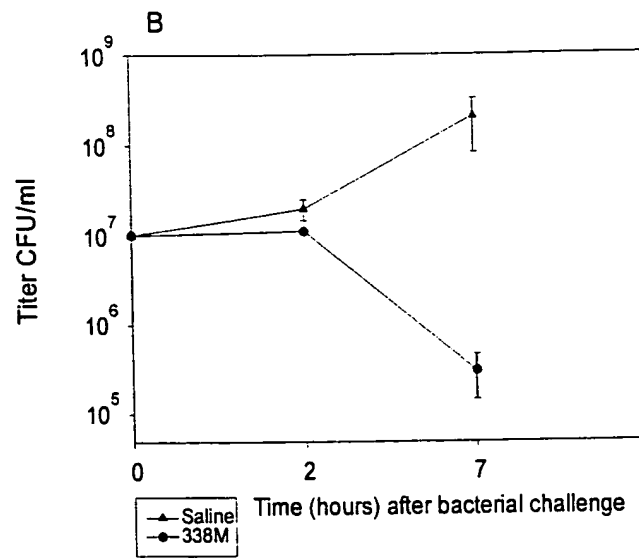
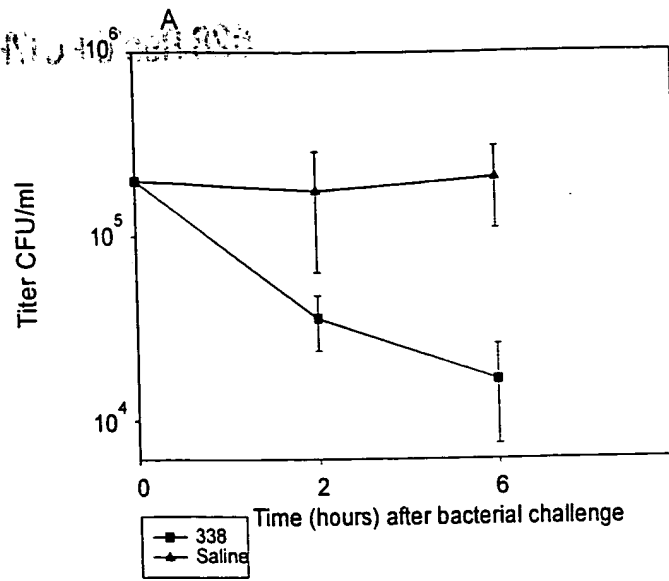


FIGURE 33

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